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PREFACE

By the Constitution of the Commonwealth of Australia, the Parliament of the Commonwealth is empowered, subject to the Constitution, 'to make laws for the peace, order, and good government of the Commonwealth, with respect to . . . Census and statistics.' In the exercise of the power so conferred, a Census and Statistics Act was passed in 1905, and in the year following the Commonwealth Bureau of Census and Statistics was created. During the late 1960s and early 1970s it became increasingly evident that new statistical legislation was required to enable the Bureau to respond to the changing needs of Government. As a consequence, the *Australian Bureau of Statistics Act*, 1975 was enacted in mid 1975. The Act came into operation from 3 May 1976. The legislation established the Australian Bureau of Statistics (ABS) as the central statistical authority for the Commonwealth Government, the office of the Australian Statistician and the Australian Statistics Advisory Council (ASAC).

The first Official Year Book was published early in 1908. This is the sixty-second Year Book issued under the authority of the Commonwealth Government. The Year Book is the principal general reference work produced by the Central Office of the Australian Bureau of Statistics. It provides a comprehensive and detailed statistical review of all aspects of the economy and social conditions of Australia, and in addition contains descriptive matter dealing with Australia's history, geography, physiography, climate and meteorology, government, defence and repatriation services, and international relations.

In the various chapters of the Year Book, and in the special index which precedes the general index, there are references to special articles, background material and items of historic interest which have appeared in previous issues.

Most of the statistics contained in this volume relate to the years ended June or December 1976 or 1977; however, some 1978 statistics have also been included. More detailed statistics on subjects dealt with in the Year Book are available in the various annual reports published by the ABS, while more recent statistics are contained in the *Digest of Current Economic Statistics* (monthly), (1305.0), the *Monthly Review of Business Statistics* (1304.0) and in other ABS publications issued monthly, quarterly, half-yearly, or yearly.

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August 1978.

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GENERAL INFORMATION

Symbols

The following *symbols*, where shown in tables, mean:

n.a. —not available

. . —nil or less than half the final digit shown, or not applicable

p —preliminary—figure or series subject to revision

r —figure or series revised since previous issue

n.e.i. —not elsewhere included

n.e.c.—not elsewhere classified

n.s. —not stated

m.—males; f.—females; p.—persons

— Break in continuity of series (where drawn across a column between two consecutive figures).

A blank space in a column of figures means that the figure concerned is not yet available.

Other forms of usage

The following *abbreviations* are used for the titles of the Australian States and Territories and Australia: N.S.W. (New South Wales), Vic. (Victoria), Qld (Queensland), S.A. (South Australia), W.A. (Western Australia), Tas. (Tasmania), N.T. (Northern Territory), A.C.T. (Australian Capital Territory), Aust. (Australia).

In general, the *statistics in this volume relate to the States and Territories of Australia*, i.e. they exclude particulars of the External Territories of Australia, which, however, are specifically dealt with in Chapter 27, Territories of Australia. A few series elsewhere include particulars of Papua New Guinea because of the nature of the subject-matter; these series are indicated.

Yearly periods shown as e.g. 1975 refer to the year ended 31 December 1975; those shown as e.g. 1974-75 refer to the year ended 30 June 1975. Other yearly periods are specifically indicated. The range of years shown in table headings, e.g. 1901 to 1974-75, indicates the period covered, but does not necessarily imply that each intervening year is included.

Values are shown in Australian dollars ($ or $A) or cents (c) unless another currency is specified.

Catalogue numbers (*previously Reference numbers*). Throughout this book references are made to ABS publications. In each case the catalogue number is shown in brackets; this should be quoted when ordering these publications (*see* below).

Where figures have been rounded, *discrepancies may occur between sums of the component items and totals.*

Availability of ABS publications

Information regarding the availability of ABS publications can be obtained from the Information Services Section, Australian Bureau of Statistics, P.O. Box 10, Belconnen, A.C.T. 2616 Australia, Phone (062) 52 7911, or from other ABS offices in each capital city and in Darwin.

A complete list of ABS publications produced in Canberra and in each of the State Offices is contained in the ABS *Catalogue of Publications*, which is available free of charge from any ABS office.

CHAPTER 1

DISCOVERY, COLONISATION AND FEDERATION OF AUSTRALIA

Early knowledge and discovery of Australia

The following paragraphs contain only a bare outline of the pre-history and of the more important facts relating to the early history of Australian discovery. A more detailed summary of the discovery of Australia may be found in Year Book No. 39 and earlier issues.

Pre-history

Man entered the Australian continent from the South-East Asian area during the last glaciation at least 40,000 years ago, when sea levels were lower than in recent times. Nevertheless, these first migrations would have entailed sea voyages of at least some 60 kilometres. Settlement was well established at least 25,000 to 30,000 years ago, and by 20,000 years ago almost all the continent was inhabited.

The original Australians lived as hunters and gatherers, using tools of wood, bone and stone. The archaeological evidence indicates that originally there was a simple, pan-continental tool-making tradition characterised by stone core tools and scrapers used to make further tools of wood. This tradition persisted until 5,000 to 6,000 years ago, when a series of new influences became apparent. A range of more specialised and sophisticated small tools was added to the old technology. The dingo, the only animal domesticated by the Aboriginals, also entered the continent at this time. These new influences never reached Tasmania, isolated for some 12,000 years by the post-glacial rising seas, where a few thousand Tasmanian Aboriginals maintained the culture of the late Pleistocene period until the European settlement of the island.

The Aboriginals probably achieved maximum exploitation of local resources within the limits of their technology. Population balance had apparently been attained long before European settlement, and anthropologists accept that there were at least some 250,000 to 300,000 Aborigines in Australia in 1788. They were divided into some 500 small groups, speaking a variety of languages and dialects. These 'tribes' were further divided into 'bands'—families or clusters of family groups—which formed the basic self-sufficient economic unit and ranged within territorial limits. Labour was divided between the sexes: the men hunted while the women foraged for the roots, seeds and small animals which formed a basic part of their subsistence. When abundant food or water supplies were available, or when ceremonial obligations demanded, local groups would congregate; in leaner times they scattered. Ceremonial exchanges of goods at these gatherings led to their wide dispersal. Religious and ceremonial activities related to the land were a vital part of Aboriginal life. There is evidence that they had developed the use of ochre as a ritual painting material as early as 25,000 years ago, while some form of ritual burial was also practised at this time.

The physical barriers of distance and aridity within Australia itself were cause in part of the cultural isolation and linguistic diversity of its people. European exploration and settlement was for most Aboriginal societies their first contact with an outside culture. The impact of this settlement led rapidly to the disappearance of the traditional Aboriginal way of life in those areas where the colonists established themselves most successfully.

Terra Australis

Although references to an Austral land are found in the works of writers in the early centuries after Christ, and evidence appeared in maps, globes, and manuscripts from the Middle Ages onward, there is no definite evidence connecting this so-called *Terra Australis* with Australia. Cornelius Wytfliet's map of 1597, however, indicates roughly the eastern and western coasts of Australia, as well as the Gulf of Carpentaria.

Early discoveries of Australia

The Portuguese may have discovered part of the Australian coast before 1542, and it has been suggested that the Arabs may have come to Australia even earlier, though there is no evidence to support this theory. For all practical purposes, however, the coastal exploration of Australia may be taken as having begun with the Spaniards and the Dutch.

In 1606 the Spaniard Quiros, on reaching the island that has retained the name of Espiritu Santo (the largest island of the New Hebrides group), thought he had discovered the great land of the south, and therefore named the group *La Australia del Spiritu Santo*. After leaving the New Hebrides, Quiros sailed eastward, but Torres, his second-in-command, took a westerly course and passed through the strait that now bears his name. In all probability he sighted the Australian continent although no mention of it is made in his records. This voyage marks the close of Spanish activity in the work of discovery in the South Seas.

The Dutch discovered Australia when the Dutch East India Company sent the *Duyfken* from Bantam, Java, to explore the island of New Guinea. During March 1606 the *Duyfken* coasted along the southern shores of New Guinea and followed the west coast of Cape York peninsula as far as Cape Keer-Weer (Turn Again).

During the following thirty years there were nine visits by Dutch navigators to Australian waters; by 1636, through their efforts, the coast of Australia from Cape York westward around to the Great Australian Bight had been discovered.

In 1642 Abel Janszoon Tasman set out from Batavia to ascertain the extent of the great southern continent. He named Van Diemen's Land (changed to Tasmania in 1856), imagining it to be part of Australia proper, and, sailing north-easterly, discovered New Zealand before returning to Batavia. In his second voyage in 1644, Tasman visited the northern coast of Australia, sailing around the Gulf of Carpentaria and along the north-west coast as far south as the tropic of Capricorn. This voyage of Tasman's may be said to have ended the period of Dutch discoveries, although there were subsequent visits by the Dutch to Australia (de Vlamingh in 1696 and Van Delft in 1705).

Discoveries by the English

In the meantime, the English had made their first appearance on the Australian coast in 1688, when the north-westerly shores were visited by William Dampier as supercargo of the *Cygnet*, a trading vessel whose crew had turned buccaneers. In 1699 he again visited Australia in command of H.M.S. *Roebuck* and, on his return to England, published an account in which a description was given of trees, flowers, birds, and reptiles observed, and of encounters with natives.

At the end of the seventeenth century it was uncertain whether Tasmania and New Zealand were parts of Australia or whether they were separated from it but themselves formed part of a great Antarctic Continent. Lieutenant (later Captain) James Cook's first voyage, though undertaken primarily for the purpose of observing from Tahiti the transit of Venus, had also the objective of ascertaining whether the unexplored part of the southern hemisphere was only an immense mass of water or whether it contained another continent. In command of H.M.S. *Endeavour*, and accompanied by botanist Sir Joseph Banks, naturalist Dr Daniel Solander, astronomer Charles Green, draughtsmen and servants, Cook, after observing the transit of Venus at Tahiti, turned towards New Zealand, sighting that land on 7 October 1769 in the neighbourhood of Poverty Bay. Circumnavigating the North and South Islands, he proved that New Zealand was connected neither with the supposed Antarctic Continent nor with Australia, and took formal possession of it in the name of the British Crown.

Discovery of Australia by Captain Cook

On 20 April 1770 Cook sighted the Australian mainland at a place he called Point Hicks, naming it after his first-lieutenant, who first saw it. Coasting northwards, on 29 April 1770 he discovered Botany Bay, where he landed. Cook sailed along the coast in a northerly direction for nearly 2,100 kilometres until 11 June 1770, when the *Endeavour* was seriously damaged by striking a coral reef in the vicinity of Trinity Bay. Repairs occupied nearly two months, and the *Endeavour* then again set her course to the north, sailing through Torres Strait and eventually anchoring in the Downs on 13 July 1771. In 1772 Cook was put in command of the ships *Resolution* and *Adventure* with a view to ascertaining whether a great southern continent existed. Having satisfied himself that, even if it did, it lay so far to the south as to be useless for trade and settlement, he returned to England in 1774. Cook's last voyage was undertaken in 1776. He met his death on 14 February 1779, by which date practically the whole coast of Australia had been explored. The only remaining discovery of importance, the existence of a channel between the present State of Tasmania and the mainland of Australia, was made by Bass and Flinders in 1798.

The annexation of Australia

Possession taken of eastern coast of Australia by Captain Cook

Although representatives of the nations mentioned in the previous section landed or claimed to have landed on the shores of Australia on various occasions during the sixteenth and seventeenth centuries, it was not until 22 August 1770† that the history of Australia was brought into definite political connection with western civilisation. It was on that date that Captain Cook took possession 'of the whole eastern coast, from latitude 38° S. to this place, latitude 10½° S. in right of His Majesty King George the Third', i.e. over only what are now the eastern parts of New South Wales, Victoria and Queensland.

Annexation of eastern part of Australian continent and Tasmania

Formal possession on behalf of the British Crown of the whole of the eastern part of the Australian continent and Tasmania was not taken until 26 January 1788, when Captain Phillip's Commission, first issued to him on 12 October 1786 and amplified on 2 April 1787, was read to the people whom he had brought with him in the 'First Fleet'. The commission appointed Phillip 'Captain-General and Governor-in-Chief in and over our territory called New South Wales, extending from the Northern Cape or extremity of the coast called Cape York, in the latitude of ten degrees thirty-seven minutes south, to the southern extremity of the said territory of New South Wales or South Cape, in the latitude of forty-three degrees thirty-nine minutes south and of all the country inland westward as far as the one hundred and thirty-fifth degree of east longitude reckoning from the meridian of Greenwich, including all the islands adjacent in the Pacific Ocean within the latitudes aforesaid of ten degrees thirty-seven minutes south and forty-three degrees thirty-nine minutes south'.

Extension of New South Wales westward

On 17 February 1824 Earl Bathurst notified Sir Thomas Brisbane that he had recommended to His Majesty the dispatch of a ship of war to the north-west coast of New Holland for the purpose of taking possession of the coast between the western coast of Bathurst Island and the eastern side of Coburg Peninsula. Captain James J. Gordon Bremer of H.M.S. *Tamar*, who was selected for the purpose, took possession on 20 September 1824 of the coast from the 135th to the 129th degree of east longitude. On 16 July 1825 the whole territory between those boundaries was described in Darling's commission as being within the boundaries of New South Wales.

Annexation of Western Australia

Lieutenant-General Sir Ralph Darling, then Governor of New South Wales, sent an expedition under Major Lockyer to found a settlement at King George Sound. The expedition sailed from Sydney on 9 November 1826, landed at the Sound on 26 December following, and on 21 January 1827 hoisted the British flag. Captain Stirling, in command of H.M.S. *Success*, arrived at Sydney a few weeks after the departure of the expedition to King George Sound. He obtained the Governor's permission to visit Swan River with a view to seizing a position on the western coast and reporting upon its suitability as a place of settlement. Captain Stirling left Sydney on 17 January 1827 and, on his return in the following April, submitted a glowing report on what he described as a 'rich and romantic country', urging its occupation for the purpose of settlement. He left for England in July 1827, continuing his advocacy—notwithstanding much discouragement—with unabated enthusiasm. He was at last successful, the result being due mainly to the formation of an association of prospective settlers having capital at their disposal. He was appointed Lieutenant-Governor and with a party of settlers arrived at Garden Island, near the Swan River, in the ship *Parmelia* in June 1829. On the second of the preceding month, Captain Fremantle, in command of H.M.S. *Challenger*, arrived and hoisted the British flag on the south head of Swan River, again asserting possession of 'all that part of New Holland which is not included within the Territory of New South Wales'. Thus, before the middle of 1829, the whole territory now known as Australia had been constituted a dependency of the United Kingdom.

The creation of the several Colonies

New South Wales

In Governor Phillip's commission of 1786, the mainland of Australia was divided by the 135th meridian of east longitude into two parts. The earliest colonists believed that the present State of Tasmania was actually joined to the mainland, and it was not until 1798 that the contrary was known. In that year Bass and Flinders proved that it was an island by sailing through Bass Strait. The territory of New South Wales as originally constituted consisted of 4,103,568 square kilometres, including Van Diemen's Land (67,897 square kilometres) and New Zealand (269,003 square kilometres), the latter being included although Cook's annexation was not properly given effect to until 1840. A further area of 1,341,971 square kilometres was added in 1825 when the western boundary was extended to 129th east meridian. The territory was subsequently reduced by the separation of various areas to form the other colonies, and at the time of the establishment of the Commonwealth the area of New South Wales was 803,863 square kilometres. Following the transfer of the Australian Capital Territory and an area at Jervis Bay to the Commonwealth in 1911 and 1915 respectively, the area was further reduced to 801,431 square kilometres.

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† In all issues up to Year Book No. 56 this date was incorrectly shown as 23 August 1770.

Lord Howe Island, which is a dependency of New South Wales and for political purposes is included in one of the electorates of Sydney, is situated in latitude 31° 32′ south, longitude 159° 05′ east (about 800 kilometres east-north-east of Sydney) and has an area of 1,625 hectares.

Tasmania

Van Dieman's Land, first settled in 1803, was politically separated from New South Wales and constituted a separate colony on 14 June 1825. The area of the colony was 67,897 square kilometres. The name of the colony was officially changed to Tasmania in 1856 when responsible government was established. Following a re-survey of local government areas, the area of Tasmania was determined at 68,332 square kilometres at the end of 1964.

Macquarie Island, about 1,550 kilometres south-east of Hobart, together with a few rocky islets nearby, has been a part of Tasmania since the nineteenth century. In December 1911 five members of the Australasian Antarctic Expedition landed on the island and remained there until 1915. On 3 March 1948 another party was landed to man a new station which has since been maintained as a scientific base. The island is about 33 kilometres long and 6 kilometres wide.

Western Australia

The territory westward of the 129th meridian, comprising 2,527,633 square kilometres, was constituted a colony under the name of Western Australia in June 1829. It was always distinct and independent of New South Wales, except for the settlement on King George Sound (*see* page 3), which remained under the jurisdiction of New South Wales until 1831.

South Australia

On 15 August 1834 the Act 4 and 5 William IV., cap. 95, was passed, creating South Australia a 'province'. Settlement took place towards the end of 1836. The first Governor, Captain Hindmarsh, R.N., arrived at Holdfast Bay on 28 December 1836, and on the same day the new colony was officially proclaimed. The new colony embraced 802,511 square kilometres of territory, lying south of the 26th parallel of south latitude and between the 141st* and 132nd meridians of east longitude. On 10 December 1861, by authority of the Imperial Act 24 and 25 Vict., cap. 44, the western boundary of South Australia was extended to coincide with the eastern boundary of Western Australia, namely the 129th east meridian. The area of the extension was approximately 181,870 square kilometres. On 6 July 1863, the Northern Territory, comprising 1,356,176 square kilometres, was brought under the jurisdiction of South Australia, which thereupon controlled an area of 2,340,557 square kilometres. The Territory was transferred to the Commonwealth on 1 January 1911 (*see* page 5). Following a resurvey of the Northern Territory notified in 1964, the area was reduced by 8,651 square kilometres.

New Zealand

Although Captain Cook had taken possession of the North Island of New Zealand in November 1769 and of the South Island in January 1770, it is doubtful whether, at the time Captain Phillip's commission was drawn up, New Zealand was considered as one of the 'islands adjacent in the Pacific Ocean' (*see* page 3). The fact that under the Supreme Court Act (Imperial) of 1823 British residents in New Zealand were brought under the jurisdiction of the Court at Sydney, and that in 1839 there was a proposal on the part of the British Government to appoint a consul in New Zealand, leaves this an open question, as nothing more than extra-territorial jurisdiction may have been intended. New Zealand does not appear to have become British territory unequivocally until 1840, when Captain Hobson arrived at the Bay of Islands and, on 30 January, read his commissions which extended the boundaries of the Colony of New South Wales so as to embrace and comprehend the islands of New Zealand. In February 1840 the Treaty of Waitangi, made with the native chiefs, was signed. Finally, on 21 May 1840, British sovereignty over the islands of New Zealand was explicitly proclaimed. New Zealand remained a dependency of New South Wales until, by letters patent of 16 November 1840, it was constituted a separate colony under the powers of the Act 3 and 4 Vict., cap. 62, of 7 August 1840. Proclamation of the separation was made on 3 May 1841.

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* The actual surveyed boundary between South Australia and Victoria is at 140° 58′ east longitude.

Victoria

In 1851 the 'Port Phillip District' of New South Wales was constituted the colony of Victoria, 'bounded on the north and north-west by a straight line drawn from Cape Howe to the nearest source of the River Murray and thence by the course of that river to the eastern boundary of the colony of South Australia'. The area of the new colony was 227,620 square kilometres, and its separate existence took effect from 1 July 1851.

Queensland

The northern squatting districts of Moreton, Darling Downs, Burnett, Wide Bay, Maranoa, Leichhardt, and Port Curtis, together with the reputed county of Stanley, were granted an independent administration and formed into a distinct colony under the name of Queensland by letters patent dated 6 June 1859, although separation from New South Wales was not completed until 10 December of the same year. The territory comprised by the new colony was 'so much of the colony of New South Wales as lies northwards of a line commencing on the sea-coast at Point Danger in latitude about 28° 8′ south, running westward along the Macpherson and Dividing Ranges and the Dumaresq River to the MacIntyre River, thence downward to the 29th parallel of South latitude, and following that parallel westerly to the 141st meridian of east longitude, which is the eastern boundary of South Australia, together with all the adjacent islands, their members, and appurtenances in the Pacific Ocean'. The area of the colony thus constituted was 1,435,637 square kilometres. By letters patent dated 13 March 1861, fowarded by the Colonial Secretary to the Governor of Queensland on 12 April 1862, the area of Queensland was increased by the annexation of 'so much of the colony of New South Wales as lies to the northward of the 26th parallel of south latitude, and between 141st and 138th meridians of east longitude, together with all the adjacent islands, their members, and appurtenances, in the Gulf of Carpentaria'. With this addition the area of Queensland became 1,736,595 square kilometres. Following a thorough revision of the area of each local government area of Queensland, based on the most recent maps available, the Surveyor-General in 1958 determined the area of Queensland as 1,727,530 square kilometres—a reduction of 9,065 square kilometres from the area previously determined.

The establishment of the Commonwealth of Australia

Federation

On 1 January 1901 the colonies mentioned, with the exception of New Zealand, were federated under the name of the 'Commonwealth of Australia', the designation of 'Colonies'—except in the case of the Northern Territory, to which the designation 'Territory' applied—being at the same time changed to that of 'States'.

Transfer of the Northern Territory to the Commonwealth

On 7 December 1907 the Commonwealth and the State of South Australia entered into an agreement for the transfer of the Northern Territory to the Commonwealth, subject to approval by the Parliaments of the Commonwealth and the State. This approval was given by the South Australian Parliament under The Northern Territory Surrender Act, 1907 and by the Commonwealth Parliament under the *Northern Territory Acceptance Act* 1910. The Territory was formally transferred to the Commonwealth on 1 January 1911, and became the Northern Territory of Australia.

By Imperial Order in Council dated 23 July 1931, Ashmore Islands, known as Middle, East and West Islands, and Cartier Island, situated in the Indian Ocean off the north-west coast of Australia, were placed under the authority of the Commonwealth. The islands were accepted by the Commonwealth on 10 May 1934, in the *Ashmore and Cartier Islands Acceptance Act* 1933, under the name of the Territory of Ashmore and Cartier Islands. The Act authorised the Governor of Western Australia to make ordinances having the force of law in and in relation to the Territory. An amendment to the Act in July 1938 annexed the islands to the Northern Territory, whose laws, ordinances, and regulations, wherever applicable, thereupon applied.

The area of Ashmore Reef is approximately 150 square kilometres (to the limit of the reef), and it is situated 350 kilometres off the western coast of Australia and 850 kilometres west of Darwin. Cartier Island is approximately 9 square kilometres in area (to the limit of the reef), and is situated 290 kilometres off the western coast of Australia and 790 kilometres west of Darwin.

Transfer of the Australian Capital Territory to the Commonwealth

On 18 October 1909 the Commonwealth and the State of New South Wales entered into an agreement for the surrender to and acceptance by the Commonwealth of an area of 2,359 square kilometres as the Seat of Government of the Commonwealth. In December 1909, Acts were passed by the Commonwealth and New South Wales Parliaments approving the agreement, and on 5 December 1910 a proclamation was issued vesting the territory in the Commonwealth on and from 1 January 1911. By the *Jervis Bay Territory Acceptance Act* 1915, an area of 73 square kilometres at Jervis Bay, surrendered by New South Wales according to an agreement made in 1913, was accepted by the Commonwealth and was transferred as from 4 September 1915.

Present composition of Australia

In 1973 the total area of Australia and of the individual States and Territories was determined by the Division of National Mapping as 7,682,300 square kilometres. Some historical dates and the present areas of the several States and Territories and of Australia are shown below.

AUSTRALIA: COMPONENT STATES AND TERRITORIES

State or Territory	*Year of annexation*	*Year of first permanent settlement*	*Year of formation into separate Colony or Territory*	*Year in which responsible government was granted*	*Present area in km²*
New South Wales	1770	1788	1786	1855	801,600
Victoria	1770	1834	1851	1855	227,600
Queensland	1770	1824	1859	(*a*)1859	1,727,200
South Australia	1788	1836	1834	1856	984,000
Western Australia	1829	1829	1829	1890	2,525,500
Tasmania	1788	1803	1825	1855	67,800
Northern Territory	..	..	(*b*)1863	..	1,346,200
Australian Capital Territory	..	..	(*c*)1911	..	2,400
Australia	..	..	..	(*d*)	**7,682,300**

(*a*) As part of New South Wales in 1855; as a separate colony in 1859. (*b*) Previously part of New South Wales; brought under the jurisdiction of South Australia in 1863; transferred to the Commonwealth in 1911. (*c*) Previously part of New South Wales. (*d*) Constituted as from 1 January 1901.

The External Territories of Australia

Norfolk Island

In 1856 Norfolk Island was created a distinct and separate settlement under the jurisdiction of New South Wales. Later, in 1896, it was made a dependency under the Governor of that colony, and finally, by the passage of the *Norfolk Island Act* 1913, it was accepted as a Territory of the Commonwealth of Australia. The island is situated in latitude 29 03′ S., longitude 167 57′ E., and comprises an area approximately 36 square kilometres.

Australian Antarctic Territory

An Imperial Order in Council of 7 February 1933 placed under Australian authority 'all the islands and territories other than Adelie Land which are situated south of the 60th degree of South Latitude and lying between the 160th degree of East Longitude and the 45th degree of East Longitude'.

The Order came into force with a proclamation issued by the Governor-General on 24 August 1936, after the passing of the *Australian Antarctic Territory Acceptance Act* 1933 by the Commonwealth Parliament. The boundaries of Adelie Land were definitely fixed by a French Decree of 1 April 1938 as latitude 60° S., longitude 136° E., and longitude 142° E.

Heard and McDonald Islands

Heard Island and the McDonald Islands, all about 4,100 kilometres south-west of Fremantle, were transferred from United Kingdom to Australian control as from 26 December 1947. Heard Island is approximately 43 kilometres long and 20 kilometres wide, while the McDonald Islands, about 43 kilometres to the west of Heard Island, are small, rocky and precipitous.

Cocos [Keeling] Islands

The Cocos (Keeling) Islands Act 1955 provided for the acceptance of the Cocos Islands as a Territory under the authority of the Commonwealth of Australia and was parallel to an Act of the United Kingdom Parliament transferring authority over the islands to the Commonwealth. Consequent on the passing of these Acts, Her Majesty, by Order in Council, specified 23 November 1955 as the date of transfer. From that date the islands came under Australian administration. Day to day affairs in the Territory are managed by an Administrator under delegation from the Minister for Administrative Services. The 27 coral islands of the Territory have an area of about 14 square kilometres, and are situated in the Indian Ocean in latitude 12 05′ S. and longitude 96 53′ E.

Christmas Island

The *Christmas Island Act* 1958 provided for the acceptance of Christmas Island as a Territory under the authority of the Commonwealth of Australia. Complementary legislation having been passed by the Parliament of the United Kingdom, the island was transferred to the Australian administration on 1 October 1958. Day to day affairs in the Territory are managed by an Administrator under delegation from the Minister for Administrative Services. The area of the island is about 140 square kilometres and it is situated in the Indian Ocean in latitude 10° 25′ S. and longitude 105° 40′ E.

Coral Sea Islands

The Coral Sea Islands were declared to be a Territory of the Commonwealth of Australia by the *Coral Sea Islands Act* 1969. The scattered reefs and islands, often little more than sandbanks, spread over a sea area of about 1 million square kilometres with only a few square kilometres of actual land area, between the Great Barrier Reef, latitude 12° S. and longitude 157°10′ E. The Minister for Administrative Services is responsible for matters affecting the Territory.

The Constitution of the Commonwealth of Australia

Information regarding the development of the Constitutions of the various Colonies (now States), together with a brief history of the federal movement in Australia, was embodied in this chapter in issues of the Year Book up to and including No. 22.

Commonwealth Constitution Act

The Commonwealth of Australia Constitution Act, 63 and 64 Vict., Chapter 12, namely: 'An Act to constitute the Commonwealth of Australia', as amended by the *Constitution Alteration* (*Senate Elections*) 1906, the *Constitution Alteration* (*State Debts*) 1909, the *Constitution Alteration* (*State Debts*) 1928, the *Constitution Alteration* (*Social Services*) 1946, the *Constitution Alteration* (*Aboriginals*) 1967, the *Constitution Alteration* (*Senate Casual Vacancies*) 1977, the *Constitution Alteration* (*Retirement of Judges*) 1977, and the *Constitution Alteration* (*Referendums*) 1977, is given hereunder. The text contains all the alterations of the Constitution which have been made up to and including 1 August 1977.

THE COMMONWEALTH OF AUSTRALIA CONSTITUTION ACT.
63 & 64 VICT., CHAPTER 12.

An Act to Constitute the Commonwealth of Australia. (9th July, 1900.)

WHEREAS the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, humbly relying on the blessing of Almighty God, have agreed to unite in one indissoluble Federal Commonwealth under the Crown of the United Kingdom of Great Britain and Ireland, and under the Constitution hereby established:

And whereas it is expedient to provide for the admission into the Commonwealth of other Australasian colonies and possessions of the Queen:

Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled and by the authority of the same, as follows:—

1. This Act may be cited as the Commonwealth of Australia Constitution Act.

2. The provisions of this Act referring to the Queen shall extend to Her Majesty's heirs and successors in the sovereignty of the United Kingdom.

3. It shall be lawful for the Queen, with the advice of the Privy Council, to declare by proclamation that, on and after a day therein appointed, not being later than one year after the passing of this Act, the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, and also, if Her Majesty is satisfied that the people of Western Australia have agreed thereto, of Western Australia, shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia. But the Queen may, at any time after the proclamation, appoint a Governor-General for the Commonwealth.

4. The Commonwealth shall be established, and the Constitution of the Commonwealth shall take effect, on and after the day so appointed. But the Parliaments of the several colonies may at any time after the passing of this Act make any such laws, to come into operation on the day so appointed, as they might have made if the Constitution had taken effect at the passing of this Act.

5. This Act, and all laws made by the Parliament of the Commonwealth under the Constitution, shall be binding on the courts, judges, and people of every State and of every part of the Commonwealth, notwithstanding anything in the laws of any State: and the laws of the Commonwealth shall be in force on all British ships, the Queen's ships of war excepted, whose first port of clearance and whose port of destination are in the Commonwealth.

6. " The Commonwealth " shall mean the Commonwealth of Australia as established under this Act.

" The States " shall mean such of the colonies of New South Wales, New Zealand, Queensland, Tasmania, Victoria, Western Australia, and South Australia, including the northern territory of South Australia, as for the time being are parts of the Commonwealth, and such colonies or territories as may be admitted into or established by the Commonwealth as States; and each of such parts of the Commonwealth shall be called " a State."

" Original States " shall mean such States as are parts of the Commonwealth at its establishment.

7. The Federal Council of Australasia Act, 1885, is hereby repealed, but so as not to affect any laws passed by the Federal Council of Australasia and in force at the establishment of the Commonwealth.

Any such law may be repealed as to any State by the Parliament of the Commonwealth, or as to any colony not being a State by the Parliament thereof.

8. After the passing of this Act the Colonial Boundaries Act, 1895, shall not apply to any colony which becomes a State of the Commonwealth; but the Commonwealth shall be taken to be a self-governing colony for the purposes of that Act.

9. The Constitution of the Commonwealth shall be as follows:—

THE CONSTITUTION.

This Constitution is divided as follows:—

Chapter I.—The Parliament:
 Part I.—General:
 Part II.—The Senate:
 Part III.—The House of Representatives:
 Part IV.—Both Houses of the Parliament:
 Part V.—Powers of the Parliament:
Chapter II.—The Executive Government:
Chapter III.—The Judicature:
Chapter IV.—Finance and Trade:
Chapter V.—The States:
Chapter VI.—New States:
Chapter VII.—Miscellaneous:
Chapter VIII.—Alteration of the Constitution.
The Schedule.

CHAPTER I.—THE PARLIAMENT.

Part I.—General.

1. The legislative power of the Commonwealth shall be vested in a Federal Parliament, which shall consist of the Queen, a Senate, and a House of Representatives, and which is hereinafter called " The Parliament ", or " The Parliament of the Commonwealth ".

2. A Governor-General appointed by the Queen shall be Her Majesty's representative in the Commonwealth, and shall have and may exercise in the Commonwealth during the Queen's pleasure, but subject to this Constitution, such powers and functions of the Queen as Her Majesty may be pleased to assign to him.

3. There shall be payable to the Queen out of the Consolidated Revenue Fund of the Commonwealth, for the salary of the Governor-General, an annual sum which, until the Parliament otherwise provides, shall be ten thousand pounds.

The salary of a Governor-General shall not be altered during his continuance in office.

4. The provisions of this Constitution relating to the Governor-General extend and apply to the Governor-General for the time being, or such person as the Queen may appoint to administer the Government of the Commonwealth; but no such person shall be entitled to receive any salary from the Commonwealth in respect of any other office during his administration of the Government of the Commonwealth.

5. The Governor-General may appoint such times for holding the sessions of the Parliament as he thinks fit, and may also from time to time, by Proclamation or otherwise, prorogue the Parliament and may in like manner dissolve the House of Representatives.

After any general election the Parliament shall be summoned to meet not later than thirty days after the day appointed for the return of the writs.

The Parliament shall be summoned to meet not later than six months after the establishment of the Commonwealth.

6. There shall be a session of the Parliament once at least in every year, so that twelve months shall not intervene between the last sitting of the Parliament in one session and its first sitting in the next session.

PART II.—THE SENATE.

7. The Senate shall be composed of senators for each State, directly chosen by the people of the State, voting, until the Parliament otherwise provides, as one electorate.

But until the Parliament of the Commonwealth otherwise provides, the Parliament of the State of Queensland, if that State be an Original State, may make laws dividing the State into divisions and determining the number of senators to be chosen for each division, and in the absence of such provision the State shall be one electorate.

Until the Parliament otherwise provides there shall be six senators for each Original State.* The Parliament may make laws increasing or diminishing the number of senators for each State, but so that equal representation of the several Original States shall be maintained and that no Original State shall have less than six senators.

The senators shall be chosen for a term of six years, and the names of the senators chosen for each State shall be certified by the Governor to the Governor-General.

8. The qualification of electors of senators shall be in each State that which is prescribed by this Constitution, or by the Parliament, as the qualification for electors of members of the House of Representatives; but in the choosing of senators each elector shall vote only once.

9. The Parliament of the Commonwealth may make laws prescribing the method of choosing senators, but so that the method shall be uniform for all the States. Subject to any such law, the Parliament of each State may make laws prescribing the method of choosing the senators for that State.

The Parliament of a State may make laws determining the times and places of elections of senators for the State.

10. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State, for the time being, relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections of senators for the State.

11. The Senate may proceed to the despatch of business, notwithstanding the failure of any State to provide for its representation in the Senate.

12. The Governor of any State may cause writs to be issued for elections of senators for the State. In case of the dissolution of the Senate the writs shall be issued within ten days from the proclamation of such dissolution.

13. As soon as may be after the Senate first meets, and after each first meeting of the Senate following a dissolution thereof, the Senate shall divide the senators chosen for each State into two classes, as nearly equal in numbers as practicable; and the places of the senators of the first class shall become vacant at the expiration of three years, and the places of those of the second class at the expiration of six years, from the beginning of their term of service; and afterwards the places of senators shall become vacant at the expiration of six years from the beginning of their term of service.

The election to fill vacant places shall be made within one year before the places are to become vacant.

For the purposes of this section the term of service of a senator shall be taken to begin on the first day of July following the day of his election, except in the cases of the first election and of the election next after any dissolution of the Senate, when it shall be taken to begin on the first day of July preceding the day of his election.

14. Whenever the number of senators for a State is increased or diminished, the Parliament of the Commonwealth may make such provision for the vacating of the places of senators for the State as it deems necessary to maintain regularity in the rotation.

15. If the place of a senator becomes vacant before the expiration of his term of service, the Houses of Parliament of the State for which he was chosen, sitting and voting together, or, if there is only one House of that Parliament, that House shall choose a person to hold the place until the expiration of the term. But if the Parliament of the State is not in session when the vacancy is notified, the Governor of the State, with the advice of the Executive Council thereof, may appoint a person to hold the place until the expiration of fourteen days from the beginning of the next session of the Parliament of the State or the expiration of the term, whichever first happens.

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* The Parliament has otherwise provided, by means of the *Representation Act* 1948, that the number of senators shall be ten for each State from the first meeting of Parliament after the first dissolution of the House of Representatives occurring after the commencement of the Act (18 May 1948).

Where a vacancy has at any time occurred in the place of a senator chosen by the people of a State and, at the time when he was so chosen, he was publicly recognized by a particular political party as being an endorsed candidate of that party and publicly represented himself to be such a candidate, a person chosen or appointed under this section in consequence of that vacancy, or in consequence of that vacancy and a subsequent vacancy or vacancies, shall, unless there is no member of that party available to be chosen or appointed, be a member of that party.

Where—

(a) in accordance with the last preceding paragraph, a member of a particular political party is chosen or appointed to hold the place of a senator whose place had become vacant; and

(b) before taking his seat he ceases to be a member of that party (otherwise than by reason of the party having ceased to exist),

he shall be deemed not to have been so chosen or appointed and the vacancy shall be again notified in accordance with section twenty-one of this Constitution.

The name of any senator chosen or appointed under this section shall be certified by the Governor of the State to the Governor-General.

If the place of a senator chosen by the people of a State at the election of senators last held before the commencement of the *Constitution Alteration* (*Senate Casual Vacancies*) 1977 became vacant before that commencement and, at that commencement, no person chosen by the House or Houses of Parliament of the State, or appointed by the Governor of the State, in consequence of that vacancy, or in consequence of that vacancy and a subsequent vacancy or vacancies, held office, this section applies as if the place of the senator chosen by the people of the State had become vacant after that commencement.

A senator holding office at the commencement of the *Constitution Alteration* (*Senate Casual Vacancies*) 1977, being a senator appointed by the Governor of a State in consequence of a vacancy that had at any time occurred in the place of a senator chosen by the people of the State, shall be deemed to have been appointed to hold the place until the expiration of fourteen days after the beginning of the next session of the Parliament of the State that commenced or commences after he was appointed and further action under this section shall be taken as if the vacancy in the place of the senator chosen by the people of the State had occurred after that commencement.

Subject to the next succeeding paragraph, a senator holding office at the commencement of the *Constitution Alteration* (*Senate Casual Vacancies*) 1977 who was chosen by the House or Houses of Parliament of a State in consequence of a vacancy that had at any time occurred in the place of a senator chosen by the people of the State shall be deemed to have been chosen to hold office until the expiration of the term of service of the senator elected by the people of the State.

If, at or before the commencement of the *Constitution Alteration* (*Senate Casual Vacancies*) 1977, a law to alter the Constitution entitled "*Constitution Alteration* (*Simultaneous Elections*) 1977" came into operation, a senator holding office at the commencement of that law who was chosen by the House or Houses of Parliament of a State in consequence of a vacancy that had at any time occurred in the place of a senator chosen by the people of the State shall be deemed to have been chosen to hold office—

(a) if the senator elected by the people of the State had a term of service expiring on the thirtieth day of June, One thousand nine hundred and seventy-eight—until the expiration or dissolution of the first House of Representatives to expire or be dissolved after that law came into operation; or

(b) if the senator elected by the people of the State had a term of service expiring on the thirtieth day of June, One thousand nine hundred and eighty-one—until the expiration or dissolution of the second House of Representatives to expire or be dissolved after that law came into operation or, if there is an earlier dissolution of the Senate, until that dissolution.

16. The qualifications of a senator shall be the same as those of a member of the House of Representatives.

17. The Senate shall, before proceeding to the despatch of any other business, choose a senator to be the President of the Senate; and as often as the office of President becomes vacant the Senate shall again choose a senator to be the President.

The President shall cease to hold his office if he ceases to be a senator. He may be removed from office by a vote of the Senate, or he may resign his office or his seat by writing addressed to the Governor-General.

18. Before or during any absence of the President, the Senate may choose a senator to perform his duties in his absence.

19. A senator may, by writing addressed to the President, or to the Governor-General if there is no President or if the President is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

20. The place of a senator shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the Senate, fails to attend the Senate.

21. Whenever a vacancy happens in the Senate, the President, or if there is no President or if the President is absent from the Commonwealth, the Governor-General, shall notify the same to the Governor of the State in the representation of which the vacancy has happened.

22. Until the Parliament otherwise provides, the presence of at least one third of the whole number of the senators shall be necessary to constitute a meeting of the Senate for the exercise of its powers.

23. Questions arising in the Senate shall be determined by a majority of votes, and each senator shall have one vote. The President shall in all cases be entitled to a vote; and when the votes are equal the question shall pass in the negative.

Part III.—The House of Representatives.

24. The House of Representatives shall be composed of members directly chosen by the people of the Commonwealth, and the number of such members shall be, as nearly as practicable, twice the number of the senators.

The number of members chosen in the several States shall be in proportion to the respective numbers of their people, and shall, until the Parliament otherwise provides, be determined, whenever necessary, in the following manner:—

(i) A quota shall be ascertained by dividing the number of the people of the Commonwealth, as shown by the latest statistics of the Commonwealth, by twice the number of the senators;

(ii) The number of members to be chosen in each State shall be determined by dividing the number of the people of the State, as shown by the latest statistics of the Commonwealth, by the quota; and if on such division there is a remainder greater than one-half of the quota, one more member shall be chosen in the State.

But notwithstanding anything in this section, five members at least shall be chosen in each Original State.

25. For the purpose of the last section, if by the law of any State all persons of any race are disqualified from voting at elections for the more numerous House of the Parliament of the State, then, in reckoning the number of the people of the State or of the Commonwealth, persons of that race resident in that State shall not be counted.

26. Notwithstanding anything in section twenty-four, the number of members to be chosen in each State at the first election shall be as follows:—

New South Wales . .	twenty-three;	South Australia . .	six;
Victoria	twenty;	Tasmania . . .	five;
Queensland . . .	eight;		

Provided that if Western Australia is an Original State, the numbers shall be as follows:—

New South Wales . .	twenty-six;	South Australia . .	seven;
Victoria	twenty-three;	Western Australia .	five;
Queensland . . .	nine;	Tasmania . . .	five.

27. Subject to this Constitution, the Parliament may make laws for increasing or diminishing the number of the members of the House of Representatives.

28. Every House of Representatives shall continue for three years from the first meeting of the House, and no longer, but may be sooner dissolved by the Governor-General.

29. Until the Parliament of the Commonwealth otherwise provides, the Parliament of any State may make laws for determining the divisions in each State for which members of the House of Representatives may be chosen, and the number of members to be chosen for each division. A division shall not be formed out of parts of different States.

In the absence of other provision, each State shall be one electorate.

30. Until the Parliament otherwise provides, the qualification of electors of members of the House of Representatives shall be in each State that which is prescribed by the law of the State as the qualification of electors of the more numerous House of Parliament of the State; but in the choosing of members each elector shall vote only once.*

31. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State for the time being relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections in the State of members of the House of Representatives.

32. The Governor-General in Council may cause writs to be issued for general elections of members of the House of Representatives.

After the first general election, the writs shall be issued within ten days from the expiry of a House of Representatives or from the proclamation of a dissolution thereof.

33. Whenever a vacancy happens in the House of Representatives, the Speaker shall issue his writ for the election of a new member, or if there is no Speaker or if he is absent from the Commonwealth the Governor-General in Council may issue the writ.

34. Until the Parliament otherwise provides, the qualifications of a member of the House of Representatives shall be as follows:—

(i) He must be of the full age of twenty-one years, and must be an elector entitled to vote at the election of members of the House of Representatives, or a person qualified to become such elector, and must have been for three years at the least a resident within the limits of the Commonwealth as existing at the time when he is chosen:

(ii) He must be a subject of the Queen, either natural-born or for at least five years naturalized under a law of the United Kingdom, or of a Colony which has become or becomes a State, or of the Commonwealth, or of a State.†

35. The House of Representatives shall, before proceeding to the despatch of any other business, choose a member to be the Speaker of the House, and as often as the office of Speaker becomes vacant the House shall again choose a member to be the Speaker.

The Speaker shall cease to hold his office if he ceases to be a member. He may be removed from office by a vote of the House, or he may resign his office or his seat by writing addressed to the Governor-General.

36. Before or during any absence of the Speaker, the House of Representatives may choose a member to perform his duties in his absence.

37. A member may by writing addressed to the Speaker, or to the Governor-General if there is no Speaker or if the Speaker is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

38. The place of a member shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the House, fails to attend the House.

39. Until the Parliament otherwise provides, the presence of at least one-third of the whole number of the members of the House of Representatives shall be necessary to constitute a meeting of the House for the exercise of its powers.

40. Questions arising in the House of Representatives shall be determined by a majority of votes other than that of the Speaker. The Speaker shall not vote unless the numbers are equal, and then he shall have a casting vote.

PART IV.—BOTH HOUSES OF THE PARLIAMENT.

41. No adult person who has or acquires a right to vote at elections for the more numerous House of the Parliament of a State, shall, while the right continues, be prevented by any law of the Commonwealth from voting at elections for either House of the Parliament of the Commonwealth.

42. Every senator and every member of the House of Representatives shall before taking his seat make and subscribe before the Governor-General, or some person authorized by him, an oath of affirmation of allegiance in the form set forth in the schedule to this Constitution.

43. A member of either House of the Parliament shall be incapable of being chosen or of sitting as a member of the other House.

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* The Parliament has otherwise provided, by means of the *Commonwealth Electoral Act* 1918, Sections 39 and 39A (repealing an earlier provision made by the *Commonwealth Franchise Act* 1902). For present qualifications *see* Chapter 3, General Government.

† The Parliament has otherwise provided, by means of the *Commonwealth Electoral Act* 1918, Section 69. For present qualifications *see* Chapter 3, General Government.

44. Any person who—

- (i) Is under any acknowledgment of allegiance, obedience, or adherence to a foreign power, or is a subject or a citizen or entitled to the rights or privileges of a subject or a citizen of a foreign power: or
- (ii) Is attainted of treason, or has been convicted and is under sentence, or subject to be sentenced, for any offence punishable under the law of the Commonwealth or of a State by imprisonment for one year or longer: or
- (iii) Is an undischarged bankrupt or insolvent: or
- (iv) Holds any office of profit under the Crown, or any pension payable during the pleasure of the Crown out of any of the revenues of the Commonwealth: or
- (v) Has any direct or indirect pecuniary interest in any agreement with the Public Service of the Commonwealth otherwise than as a member and in common with the other members of an incorporated company consisting of more than twenty-five persons:

shall be incapable of being chosen or of sitting as a senator or a member of the House of Representatives.

But sub-section (iv) does not apply to the office of any of the Queen's Ministers of State for the Commonwealth, or of any of the Queen's Ministers for a State, or to the receipt of pay, half-pay, or a pension by any person as an officer or member of the Queen's navy or army, or to the receipt of pay as an officer or member of the naval or military forces of the Commonwealth by any person whose services are not wholly employed by the Commonwealth.

45. If a senator or member of the House of Representatives—

- (i) Becomes subject to any of the disabilities mentioned in the last preceding section: or
- (ii) Takes the benefit, whether by assignment, composition, or otherwise, of any law relating to bankrupt or insolvent debtors: or
- (iii) Directly or indirectly takes or agrees to take any fee or honorarium for services rendered to the Commonwealth, or for services rendered in the Parliament to any person or State:

his place shall thereupon become vacant.

46. Until the Parliament otherwise provides, any person declared by this Constitution to be incapable of sitting as a senator or as a member of the House of Representatives shall, for every day on which he so sits, be liable to pay the sum of one hundred pounds to any person who sues for it in any court of competent jurisdiction.

47. Until the Parliament otherwise provides, any question respecting the qualification of a senator or of a member of the House of Representatives, or respecting a vacancy in either House of the Parliament, and any question of a disputed election to either House shall be determined by the House in which the question arises.

48. Until the Parliament otherwise provides, each senator and each member of the House of Representatives shall receive an allowance of four hundred pounds a year, to be reckoned from the day on which he takes his seat.*

49. The powers, privileges, and immunities of the Senate and of the House of Representatives, and of the members and the committees of each House, shall be such as are declared by the Parliament, and until declared shall be those of the Commons House of Parliament of the United Kingdom, and of its members and committees, at the establishment of the Commonwealth.

50. Each House of the Parliament may make rules and orders with respect to—

- (i) The mode in which its powers, privileges, and immunities may be exercised and upheld;
- (ii) The order and conduct of its business and proceedings either separately or jointly with the other House.

PART V.—POWERS OF THE PARLIAMENT.†

51. The Parliament shall, subject to this Constitution, have power to make laws for the peace, order, and good government of the Commonwealth with respect to:—

- (i) Trade and commerce with other countries, and among the States:
- (ii) Taxation; but so as not to discriminate between States or parts of States:
- (iii) Bounties on the production or export of goods, but so that such bounties shall be uniform throughout the Commonwealth:

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* The Parliamentary allowance has been varied from time to time. For current allowances, *see* Chapter 3, General Government.

† Particulars of proposed laws which were submitted to referendums are referred to in Chapter 3, General Government of this Year Book.

(iv) Borrowing money on the public credit of the Commonwealth:

(v) Postal, telegraphic, telephonic, and other like services:

(vi) The naval and military defence of the Commonwealth and of the several States, and the control of the forces to execute and maintain the laws of the Commonwealth:

(vii) Lighthouses, lightships, beacons and buoys:

(viii) Astronomical and meteorological observations:

(ix) Quarantine:

(x) Fisheries in Australian waters beyond territorial limits:

(xi) Census and statistics:

(xii) Currency, coinage, and legal tender:

(xiii) Banking, other than State banking; also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money:

(xiv) Insurance, other than State insurance; also State insurance extending beyond the limits of the State concerned.

(xv) Weights and measures:

(xvi) Bills of exchange and promissory notes:

(xvii) Bankruptcy and insolvency:

(xviii) Copyrights, patents of inventions and designs, and trade marks:

(xix) Naturalization and aliens:

(xx) Foreign corporations, and trading or financial corporations formed within the limits of the Commonwealth:

(xxi) Marriage:

(xxii) Divorce and matrimonial causes; and in relation thereto, parental rights, and the custody and guardianship of infants:

(xxiii) Invalid and old-age pensions:

(xxiiiA) The provision of maternity allowances, widows' pensions, child endowment, unemployment, pharmaceutical, sickness and hospital benefits, medical and dental services (but not so as to authorize any form of civil conscription), benefits to students and family allowances:

(xxiv) The service and execution throughout the Commonwealth of the civil and criminal process and the judgments of the courts of the States:

(xxv) The recognition throughout the Commonwealth of the laws, the public Acts and records, and the judicial proceedings of the States:

(xxvi) The people of any race for whom it is deemed necessary to make special laws:

(xxvii) Immigration and emigration:

(xxviii) The influx of criminals:

(xxix) External affairs:

(xxx) The relations of the Commonwealth with the islands of the Pacific.

(xxxi) The acquisition of property on just terms from any State or person for any purpose in respect of which the Parliament has power to make laws:

(xxxii) The control of railways with respect to transport for the naval and military purposes of the Commonwealth:

(xxxiii) The acquisition, with the consent of a State, of any railways of the State on terms arranged between the Commonwealth and the State:

(xxxiv) Railway construction and extension in any State with the consent of that State:

(xxxv) Conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State:

(xxxvi) Matters in respect of which this Constitution makes provision until the Parliament otherwise provides:

(xxxvii) Matters referred to the Parliament of the Commonwealth by the Parliament or Parliaments of any State or States, but so that the law shall extend only to States by whose Parliaments the matter is referred, or which afterwards adopt the law:

(xxxviii) The exercise within the Commonwealth, at the request or with the concurrence of the Parliaments of all the States directly concerned, of any power which can at the establishment of this Constitution be exercised only by the Parliament of the United Kingdom or by the Federal Council of Australasia:

(xxxix) Matters incidental to the execution of any power vested by this Constitution in the Parliament or in either House thereof, or in the Government of the Commonwealth, or in the Federal Judicature, or in any department or officer of the Commonwealth.

52. The Parliament shall, subject to this Constitution, have exclusive power to make laws for the peace, order, and good government of the Commonwealth with respect to—

(i) The seat of Government of the Commonwealth, and all places acquired by the Commonwealth for public purposes:

(ii) Matters relating to any department of the public service the control of which is by this Constitution transferred to the Executive Government of the Commonwealth:

(iii) Other matters declared by this Constitution to be within the exclusive power of the Parliament.

53. Proposed laws appropriating revenue or moneys, or imposing taxation, shall not originate in the Senate. But a proposed law shall not be taken to appropriate revenue or moneys, or to impose taxation, by reason only of its containing provisions for the imposition or appropriation of fines or other pecuniary penalties, or for the demand or payment or appropriation of fees for licences, or fees for services under the proposed law.

The Senate may not amend proposed laws imposing taxation, or proposed laws appropriating revenue or moneys for the ordinary annual services of the Government.

The Senate may not amend any proposed law so as to increase any proposed charge or burden on the people.

The Senate may at any stage return to the House of Representatives any proposed law which the Senate may not amend, requesting, by message, the omission or amendment of any items or provisions therein. And the House of Representatives may, if it thinks fit, make any of such omissions or amendments, with or without modifications.

Except as provided in this section, the Senate shall have equal power with the House of Representatives in respect of all proposed laws.

54. The proposed law which appropriates revenue or moneys for the ordinary annual services of the Government shall deal only with such appropriation.

55. Laws imposing taxation shall deal only with the imposition of taxation, and any provision therein dealing with any other matter shall be of no effect.

Laws imposing taxation, except laws imposing duties of customs or of excise, shall deal with one subject of taxation only; but laws imposing duties of customs shall deal with duties of customs only, and laws imposing duties of excise shall deal with duties of excise only.

56. A vote, resolution, or proposed law for the appropriation of revenue or moneys shall not be passed unless the purpose of the appropriation has in the same session been recommended by message of the Governor-General to the House in which the proposal originated.

57. If the House of Representatives passes any proposed law, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, and if after an interval of three months the House of Representatives, in the same or the next session, again passes the proposed law with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may dissolve the Senate and the House of Representatives simultaneously. But such dissolution shall not take place within six months before the date of expiry of the House of Representatives by effluxion of time.

If after such dissolution the House of Representatives again passes the proposed law, with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may convene a joint sitting of the members of the Senate and of the House of Representatives.

The members present at the joint sitting may deliberate and shall vote together upon the proposed law as last proposed by the House of Representatives, and upon amendments, if any, which have been made therein by one House and not agreed to by the other, and any such amendments which are affirmed by an absolute majority of the total number of the members of the Senate and House of Representatives shall be taken to have been carried, and if the proposed law, with the amendments, if any, so carried is affirmed by an absolute majority of the total number of the members of the Senate and House of Representatives, it shall be taken to have been duly passed by both Houses of the Parliament, and shall be presented to the Governor-General for the Queen's assent.

58. When a proposed law passed by both Houses of the Parliament is presented to the Governor-General for the Queen's assent he shall declare, according to his discretion, but subject to this Constitution, that he assents in the Queen's name, or that he withholds assent, or that he reserves the law for the Queen's pleasure.

The Governor-General may return to the House in which it originated any proposed law so presented to him, and may transmit therewith any amendments which he may recommend, and the Houses may deal with the recommendation.

59. The Queen may disallow any law within one year from the Governor-General's assent, and such disallowance on being made known by the Governor-General by speech or message to each of the Houses of the Parliament, or by Proclamation, shall annul the law from the day when the disallowance is so made known.

60. A proposed law reserved for the Queen's pleasure shall not have any force unless and until within two years from the day on which it was presented to the Governor-General for the Queen's assent the Governor-General makes known, by speech or message to each of the Houses of the Parliament, or by Proclamation, that it has received the Queen's assent.

CHAPTER II.—THE EXECUTIVE GOVERNMENT.

61. The executive power of the Commonwealth is vested in the Queen and is exercisable by the Governor-General as the Queen's representative, and extends to the execution and maintenance of this Constitution, and of the laws of the Commonwealth.

62. There shall be a Federal Executive Council to advise the Governor-General in the government of the Commonwealth, and the members of the Council shall be chosen and summoned by the Governor-General and sworn as Executive Councillors, and shall hold office during his pleasure.

63. The provisions of this Constitution referring to the Governor-General in Council shall be construed as referring to the Governor-General acting with the advice of the Federal Executive Council.

64. The Governor-General may appoint officers to administer such departments of State of the Commonwealth as the Governor-General in Council may establish.

Such officers shall hold office during the pleasure of the Governor-General. They shall be members of the Federal Executive Council, and shall be the Queen's Ministers of State for the Commonwealth.

After the first general election no Minister of State shall hold office for a longer period than three months unless he is or becomes a senator or a member of the House of Representatives.

65. Until the Parliament otherwise provides, the Ministers of State shall not exceed seven in number, and shall hold such offices as the Parliament prescribes, or, in the absence of provision, as the Governor-General directs.*

66. There shall be payable to the Queen, out of the Consolidated Revenue Fund of the Commonwealth, for the salaries of the Ministers of State, an annual sum which, until the Parliament otherwise provides, shall not exceed twelve thousand pounds a year.*

67. Until the Parliament otherwise provides, the appointment and removal of all other officers of the Executive Government of the Commonwealth shall be vested in the Governor-General in Council, unless the appointment is delegated by the Governor-General in Council or by a law of the Commonwealth to some other authority.

68. The command in chief of the naval and military forces of the Commonwealth is vested in the Governor-General as the Queen's representative.

69. On a date or dates to be proclaimed by the Governor-General after the establishment of the Commonwealth the following departments of the public service in each State shall become transferred to the Commonwealth:—

Posts, telegraphs, and telephones:
Naval and military defence:
Lighthouses, lightships, beacons and buoys:
Quarantine.

But the departments of customs and of excise in each State shall become transferred to the Commonwealth on its establishment.

70. In respect of matters which, under this Constitution, pass to the Executive Government of the Commonwealth, all powers and functions which at the establishment of the Commonwealth are vested in the Governor of a Colony, or in the Governor of a Colony with the advice of his Executive Council, or in any authority of a Colony, shall vest in the Governor-General, or in the Governor-General in Council, or in the authority exercising similar powers under the Commonwealth, as the case requires.

CHAPTER III.—THE JUDICATURE.

71. The judicial power of the Commonwealth shall be vested in a Federal Supreme Court, to be called the High Court of Australia, and in such other federal courts as the Parliament creates, and in such other courts as it invests with federal jurisdiction. The High Court shall consist of a Chief Justice, and so many other Justices, not less than two, as the Parliament prescribes.†

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* The number of Ministers of State and the annual appropriation for their salaries have been varied from time to time. For current particulars, *see* Chapter 3, General Government.

† The *Judiciary Act* 1903 provided for a Chief Justice and two other Justices, increased by subsequent amendments to six.

72. The Justices of the High Court and of the other Courts created by the Parliament—

(i) Shall be appointed by the Governor-General in Council:

(ii) Shall not be removed except by the Governor-General in Council, on an address from both Houses of the Parliament in the same session, praying for such removal on the ground of proved misbehaviour or incapacity:

(iii) Shall receive such remuneration as the Parliament may fix; but the remuneration shall not be diminished during their continuance in office.†

The appointment of a Justice of the High Court shall be for a term expiring upon his attaining the age of seventy years, and a person shall not be appointed as a Justice of the High Court if he has attained that age.

The appointment of a Justice of a court created by the Parliament shall be for a term expiring upon his attaining the age that is, at the time of his appointment, the maximum age for Justices of that court and a person shall not be appointed as a Justice of such a court if he has attained the age that is for the time being the maximum age for Justices of that court.

Subject to this section, the maximum age for Justices of any court created by the Parliament is seventy years.

The Parliament may make a law fixing an age that is less than seventy years as the maximum age for Justices of a court created by the Parliament and may at any time repeal or amend such a law, but any such repeal or amendment does not affect the term of office of a Justice under an appointment made before the repeal or amendment.

A Justice of the High Court or of a court created by the Parliament may resign his office by writing under his hand delivered to the Governor-General.

Nothing in the provisions added to this section by the *Constitution Alteration* (*Retirement of Judges*) 1977 affects the continuance of a person in office as a Justice of a court under an appointment made before the commencement of those provisions.

A reference in this section to the appointment of a Justice of the High Court or of a court created by the Parliament shall be read as including a reference to the appointment of a person who holds office as a Justice of the High Court or of a court created by the Parliament to another office of Justice of the same court having a different status or designation.

73. The High Court shall have jurisdiction, with such exceptions and subject to such regulations as the Parliament prescribes, to hear and determine appeals from all judgments, decrees, orders, and sentences—

(i) Of any Justice or Justices exercising the original jurisdiction of the High Court:

(ii) Of any other federal court, or court exercising federal jurisdiction; or of the Supreme Court of any State, or of any other court of any State from which at the establishment of the Commonwealth an appeal lies to the Queen in Council:

(iii) Of the Inter-State Commission, but as to questions of law only:

and the judgment of the High Court in all such cases shall be final and conclusive.

But no exception or regulation prescribed by the Parliament shall prevent the High Court from hearing and determining any appeal from the Supreme Court of a State in any matter in which at the establishment of the Commonwealth an appeal lies from such Supreme Court to the Queen in Council.

Until the Parliament otherwise provides, the conditions of and restrictions on appeals to the Queen in Council from the Supreme Courts of the several States shall be applicable to appeals from them to the High Court.

74. No appeal shall be permitted to the Queen in Council from a decision of the High Court upon any question, howsoever arising, as to the limits inter se of the Constitutional powers of the Commonwealth and those of any State or States, or as to the limits inter se of the Constitutional powers of any two or more States, unless the High Court shall certify that the question is one which ought to be determined by Her Majesty in Council.

The High Court may so certify if satisfied that for any special reason the certificate should be granted, and thereupon an appeal shall lie to Her Majesty in Council on the question without further leave.

Except as provided in this section, this Constitution shall not impair any right which the Queen may be pleased to exercise by virtue of Her Royal prerogative to grant special leave of appeal from the High Court to Her Majesty in Council. The Parliament may make laws limiting the matters in which such leave may be asked, but proposed laws containing any such limitation shall be reserved by the Governor-General for Her Majesty's pleasure.

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† The *Judiciary Act* 1903 provided for the payment of a salary of £3,500 ($7,000) a year to the Chief Justice and of £3,000 ($6,000) a year to each other Justice. These amounts have been varied from time to time.

75. In all matters—

(i) Arising under any treaty:
(ii) Affecting consuls or other representatives of other countries:
(iii) In which the Commonwealth, or a person suing or being sued on behalf of the Commonwealth, is a party:
(iv) Between States, or between residents of different States, or between a State and a resident of another State:
(v) In which a writ of Mandamus or prohibition or an injunction is sought against an officer of the Commonwealth:

the High Court shall have original jurisdiction.

76. The Parliament may make laws conferring original jurisdiction on the High Court in any matter—

(i) Arising under this Constitution, or involving its interpretation:
(ii) Arising under any laws made by the Parliament:
(iii) Of Admiralty and maritime jurisdiction:
(iv) Relating to the same subject-matter claimed under the laws of different States.

77. With respect to any of the matters mentioned in the last two sections the Parliament may make laws—

(i) Defining the jurisdiction of any federal court other than the High Court:
(ii) Defining the extent to which the jurisdiction of any federal court shall be exclusive of that which belongs to or is invested in the courts of the States:
(iii) Investing any court of a State with federal jurisdiction.

78. The Parliament may make laws conferring rights to proceed against the Commonwealth or a State in respect of matters within the limits of the judicial power.

79. The federal jurisdiction of any court may be exercised by such number of judges as the Parliament prescribes.

80. The trial on indictment of any offence against any law of the Commonwealth shall be by jury, and every such trial shall be held in the State where the offence was committed, and if the offence was not committed within any State the trial shall be held at such place or places as the Parliament prescribes.

CHAPTER IV.—FINANCE AND TRADE.

81. All revenues or moneys raised or received by the Executive Government of the Commonwealth shall form one Consolidated Revenue Fund, to be appropriated for the purposes of the Commonwealth in the manner and subject to the charges and liabilities imposed by this Constitution.

82. The costs, charges, and expenses incident to the collection, management, and receipt of the Consolidated Revenue Fund shall form the first charge thereon; and the revenue of the Commonwealth shall in the first instance be applied to the payment of the expenditure of the Commonwealth.

83. No money shall be drawn from the Treasury of the Commonwealth except under appropriation made by law.

But until the expiration of one month after the first meeting of the Parliament the Governor-General in Council may draw from the Treasury and expend such moneys as may be necessary for the maintenance of any department transferred to the Commonwealth and for the holding of the first elections for the Parliament.

84. When any department of the public service of a State becomes transferred to the Commonwealth, all officers of the department shall become subject to the control of the Executive Government of the Commonwealth.

Any such officer who is not retained in the service of the Commonwealth shall, unless he is appointed to some other office of equal emolument in the public service of the State, be entitled to receive from the State any pension, gratuity, or other compensation, payable under the law of the State on the abolition of his office.

Any such officer who is retained in the service of the Commonwealth shall preserve all his existing and accruing rights, and shall be entitled to retire from office at the time, and on the pension or retiring allowance, which would be permitted by the law of the State if his service with the Commonwealth were a continuation of his service with the State. Such pension or retiring allowance shall be paid to him by the Commonwealth; but the State shall pay to the Commonwealth a part thereof to be calculated on the proportion which his term of service with the State bears to his whole term of service, and for the purpose of the calculation his salary shall be taken to be that paid to him by the State at the time of the transfer.

Any officer who is, at the establishment of the Commonwealth, in the public service of a State, and who is, by consent of the Governor of the State with the advice of the Executive Council thereof, transferred to the public service of the Commonwealth, shall have the same rights as if he had been an officer of a department transferred to the Commonwealth and were retained in the service of the Commonwealth.

85. When any department of the public service of a State is transferred to the Commonwealth—

(i) All property of the State of any kind, used exclusively in connexion with the department, shall become vested in the Commonwealth; but, in the case of the departments controlling customs and excise bounties, for such time only as the Governor-General in Council may declare to be necessary:

(ii) The Commonwealth may acquire any property of the State, of any kind used, but not exclusively used in connexion with the department; the value thereof shall, if no agreement can be made, be ascertained in, as nearly as may be, the manner in which the value of land, or of an interest in land, taken by the State for public purposes is ascertained under the law of the State in force at the establishment of the Commonwealth:

(iii) The Commonwealth shall compensate the State for the value of any property passing to the Commonwealth under this section; if no agreement can be made as to the mode of compensation, it shall be determined under laws to be made by the Parliament:

(iv) The Commonwealth shall, at the date of the transfer, assume the current obligations of the State in respect of the department transferred.

86. On the establishment of the Commonwealth, the collection and control of duties of customs and of excise, and the control of the payment of bounties, shall pass to the Executive Government of the Commonwealth.

87. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, of the net revenue of the Commonwealth from duties of customs and of excise not more than one-fourth shall be applied annually by the Commonwealth towards its expenditure.

The balance shall, in accordance with this Constitution, be paid to the several States, or applied towards the payment of interest on debts of the several States taken over by the Commonwealth.

88. Uniform duties of customs shall be imposed within two years after the establishment of the Commonwealth.

89. Until the imposition of uniform duties of customs—

(i) The Commonwealth shall credit to each State the revenues collected therein by the Commonwealth.

(ii) The Commonwealth shall debit to each State—

(*a*) The expenditure therein of the Commonwealth incurred solely for the maintenance or continuance, as at the time of transfer, of any department transferred from the State to the Commonwealth;

(*b*) The proportion of the State, according to the number of its people, in the other expenditure of the Commonwealth.

(iii) The Commonwealth shall pay to each State month by month the balance (if any) in favour of the State.

90. On the imposition of uniform duties of customs the power of the Parliament to impose duties of customs and of excise, and to grant bounties on the production or export of goods, shall become exclusive.

On the imposition of uniform duties of customs all laws of the several States imposing duties of customs or of excise, or offering bounties on the production or export of goods, shall cease to have effect, but any grant of or agreement for any such bounty lawfully made by or under the authority of the Government of any State shall be taken to be good if made before the thirtieth day of June, one thousand eight hundred and ninety-eight, and not otherwise.

91. Nothing in this Constitution prohibits a State from granting any aid to or bounty on mining for gold, silver, or other metals, nor from granting, with the consent of both Houses of the Parliament of the Commonwealth expressed by resolution, any aid to or bounty on the production or export of goods.

92. On the imposition of uniform duties of customs, trade, commerce, and intercourse among the States, whether by means of internal carriage or ocean navigation, shall be absolutely free.

But notwithstanding anything in this Constitution, goods imported before the imposition of uniform duties of customs into any State, or into any Colony which, whilst the goods remain therein, becomes a State, shall, on thence passing into another State within two years after the imposition of such duties, be liable to any duty chargeable on the importation of such goods into the Commonwealth, less any duty paid in respect of the goods on their importation.

93. During the first five years after the imposition of uniform duties of customs, and thereafter until the Parliament otherwise provides—

(i) The duties of customs chargeable on goods imported into a State and afterwards passing into another State for consumption, and the duties of excise paid on goods produced or manufactured in a State and afterwards passing into another State for consumption, shall be taken to have been collected not in the former but in the latter State:

(ii) Subject to the last sub-section, the Commonwealth shall credit revenue, debit expenditure, and pay balances to the several States as prescribed for the period preceding the imposition of uniform duties of customs.

94. After five years from the imposition of uniform duties of customs, the Parliament may provide, on such basis as it deems fair, for the monthly payment to the several States of all surplus revenue of the Commonwealth.

95. Notwithstanding anything in this Constitution, the Parliament of the State of Western Australia, if that State be an Original State, may, during the first five years after the imposition of uniform duties of customs, impose duties of customs on goods passing into that State and not originally imported from beyond the limits of the Commonwealth; and such duties shall be collected by the Commonwealth.

But any duty so imposed on any goods shall not exceed during the first of such years the duty chargeable on the goods under the law of Western Australia in force at the imposition of uniform duties, and shall not exceed during the second, third, fourth. and fifth of such years respectively, four-fifths, three-fifths, two-fifths and one-fifth of such latter duty, and all duties imposed under this section shall cease at the expiration of the fifth year after the imposition of uniform duties.

If at any time during the five years the duty on any goods under this section is higher than the duty imposed by the Commonwealth on the importation of the like goods, then such higher duty shall be collected on the goods when imported into Western Australia from beyond the limits of the Commonwealth.

96. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, the Parliament may grant financial assistance to any State on such terms and conditions as the Parliament thinks fit.

97. Until the Parliament otherwise provides, the laws in force in any Colony which has become or becomes a State with respect to the receipt of revenue and the expenditure of money on account of the Government of the Colony, and the review and audit of such receipt and expenditure, shall apply to the receipt of revenue and the expenditure of money on account of the Commonwealth in the State in the same manner as if the Commonwealth, or the Government or an officer of the Commonwealth, were mentioned wherever the Colony, or the Government or an officer of the Colony is mentioned.

98. The power of the Parliament to make laws with respect to trade and commerce extends to navigation and shipping, and to railways the property of any State.

99. The Commonwealth shall not, by any law or regulation of trade, commerce, or revenue, give preference to one State or any part thereof over another State or any part thereof.

100. The Commonwealth shall not, by any law or regulation or trade or commerce, abridge the right of a State or of the residents therein to the reasonable use of the waters of rivers for conservation or irrigation.

101. There shall be an Inter-State Commission, with such powers of adjudication and administration as the Parliament deems necessary for the execution and maintenance, within the Commonwealth, of the provisions of this Constitution relating to trade and commerce, and of all laws made thereunder.

102. The Parliament may by any law with respect to trade or commerce forbid, as to railways, any preference or discrimination by any State, or by any authority constituted under a State, if such preference or discrimination is undue and unreasonable, or unjust to any State; due regard being had to the financial responsibilities incurred by any State in connexion with the construction and maintenance of its railways. But no preference or discrimination shall, within the meaning of this section, be taken to be undue and unreasonable, or unjust to any State, unless so adjudged by the Inter-State Commission.

103. The Members of the Inter-State Commission—

(i) Shall be appointed by the Governor-General in Council:

(ii) Shall hold office for seven years, but may be removed within that time by the Governor-General in Council, on an address from both Houses of the Parliament in the same session praying for such removal on the ground of proved misbehaviour or incapacity:

(iii) Shall receive such remuneration as the Parliament may fix; but such remuneration shall not be diminished during their continuance in office.

104. Nothing in this Constitution shall render unlawful any rate for the carriage of goods upon a railway, the property of a State, if the rate is deemed by the Inter-State Commission to be necessary for the development of the territory of the State, and if the rate applies equally to goods within the State and to goods passing into the State from other States.

105. The Parliament may take over from the States their public debts or a proportion thereof according to the respective numbers of their people as shown by the latest statistics of the Commonwealth, and may convert, renew, or consolidate such debts, or any part thereof; and the States shall indemnify the Commonwealth in respect of the debts taken over, and thereafter the interest payable in respect of the debts shall be deducted and retained from the portions of the surplus revenue of the Commonwealth payable to the several States, or if such surplus is insufficient, or if there is no surplus, then the deficiency or the whole amount shall be paid by the several States.

105A (1.) The Commonwealth may make agreements with the States with respect to the public debts of the States, including—

(a) the taking over of such debts by the Commonwealth;
(b) the management of such debts;
(c) the payment of interest and the provision and management of sinking funds in respect of such debts;
(d) the consolidation, renewal, conversion, and redemption of such debts;
(e) the indemnification of the Commonwealth by the States in respect of debts taken over by the Commonwealth; and
(f) the borrowing of money by the States or by the Commonwealth, or by the Commonwealth for the States.

(2.) The Parliament may make laws for validating any such agreement made before the commencement of this section.

(3.) The Parliament may make laws for the carrying out by the parties thereto of any such agreement.

(4.) Any such agreement may be varied or rescinded by the parties thereto.

(5.) Every such agreement and any such variation therof shall be binding upon the Commonwealth and the States parties thereto notwithstanding anything contained in this Constitution or the Constitution of the several States or in any law of the Parliament of the Commonwealth or of any State.

(6.) The powers conferred by this section shall not be construed as being limited in any way by the provisions of section one hundred and five of this Constitution.

CHAPTER V.—THE STATES.

106. The Constitution of each State of the Commonwealth shall, subject to this Constitution, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be, until altered in accordance with the Constitution of the State.

107. Every power of the Parliament of a Colony which has become or becomes a State, shall, unless it is by this Constitution exclusively vested in the Parliament of the Commonwealth or withdrawn from the Parliament of the State, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be.

108. Every law in force in a Colony which has become or becomes a State, and relating to any matter within the powers of the Parliament of the Commonwealth, shall, subject to this Constitution, continue in force in the State; and, until provision is made in that behalf by the Parliament of the Commonwealth, the Parliament of the State shall have such powers of alteration and of repeal in respect of any such law as the Parliament of the Colony had until the Colony became a State.

109. When a law of a State is inconsistent with a law of the Commonwealth, the latter shall prevail, and the former shall, to the extent of the inconsistency, be invalid.

110. The provisions of this Constitution relating to the Governor of a State extend and apply to the Governor for the time being of the State, or other chief executive officer or administrator of the government of the State.

111. The Parliament of a State may surrender any part of the State to the Commonwealth; and upon such surrender, and the acceptance thereof by the Commonwealth, such part of the State shall become subject to the exclusive jurisdiction of the Commonwealth.

112. After uniform duties of customs have been imposed, a State may levy on imports or exports, or on goods passing into or out of the State, such charges as may be necessary for executing the inspection laws of the State; but the net produce of all charges so levied shall be for the use of the Commonwealth; and any such inspection laws may be annulled by the Parliament of the Commonwealth.

113. All fermented, distilled, or other intoxicating liquids passing into any State or remaining therein for use, consumption, sale or storage, shall be subject to the laws of the State as if such liquids had been produced in the State.

114. A State shall not, without the consent of the Parliament of the Commonwealth, raise or maintain any naval or military force, or impose any tax on property of any kind belonging to the Commonwealth, nor shall the Commonwealth impose any tax on property of any kind belonging to a State.

115. A State shall not coin money, nor make anything but gold and silver coin a legal tender in payment of debts.

116. The Commonwealth shall not make any law for establishing any religion, or for imposing any religious observance, or for prohibiting the free exercise of any religion, and no religious test shall be required as a qualification for any office or public trust under the Commonwealth.

117. A subject of the Queen. resident in any State, shall not be subject in any other State to any disability or discrimination which would not be equally applicable to him if he were a subject of the Queen resident in such other State.

118. Full faith and credit shall be given, throughout the Commonwealth, to the laws, the public Acts and records, and the judicial proceedings of every State.

119. The Commonwealth shall protect every State against invasion and, on the application of the Executive Government of the State, against domestic violence.

120. Every State shall make provision for the detention in its prisons of persons accused or convicted of offences against the laws of the Commonwealth, and for the punishment of persons convicted of such offences, and the Parliament of the Commonwealth may make laws to give effect to this provision.

CHAPTER VI.—NEW STATES.

121. The Parliament may admit to the Commonwealth or establish new States, and may upon such admission or establishment make or impose such terms and conditions, including the extent of representation in either House of the Parliament, as it thinks fit.

122. The Parliament may make laws for the government of any territory surrendered by any State to and accepted by the Commonwealth, or of any territory placed by the Queen under the authority of and accepted by the Commonwealth, or otherwise acquired by the Commonwealth, and may allow the representation of such territory in either House of the Parliament to the extent and on the terms which it thinks fit.

123. The Parliament of the Commonwealth may, with the consent of the Parliament of a State, and the approval of the majority of the electors of the State voting upon the question, increase, diminish, or otherwise alter the limits of the State, upon such terms and conditions as may be agreed on, and may, with the like consent, make provision respecting the effect and operation of any increase or diminution or alteration of territory in relation to any State affected.

124. A new State may be formed by separation of territory from a State, but only with the consent of the Parliament thereof, and a new State may be formed by the union of two or more States or parts of States, but only with the consent of the Parliaments of the States affected.

CHAPTER VII.—MISCELLANEOUS.

125. The seat of Government of the Commonwealth shall be determined by the Parliament and shall be within territory which shall have been granted to or acquired by the Commonwealth, and shall be vested in and belong to the Commonwealth, and shall be in the State of New South Wales, and be distant not less than one hundred miles from Sydney.

Such territory shall contain an area of not less than one hundred square miles, and such portion thereof as shall consist of Crown lands shall be granted to the Commonwealth without any payment therefor.

The Parliament shall sit at Melbourne until it meet at the seat of Government.

126. The Queen may authorize the Governor-General to appoint any person, or any persons jointly or severally, to be his deputy or deputies within any part of the Commonwealth, and in that capacity to exercise during the pleasure of the Governor-General such powers and functions of the Governor-General as he thinks fit to assign to such deputy or deputies, subject to any limitations expressed or directions given by the Queen; but the appointment of such deputy or deputies shall not affect the exercise by the Governor-General himself of any power or function.

127. Repealed.

CHAPTER VIII.—ALTERATION OF THE CONSTITUTION.

128. This Constitution shall not be altered except in the following manner:—

The proposed law for the alteration thereof must be passed by an absolute majority of each House of the Parliament, and not less than two nor more than six months after its passage through both Houses the proposed law shall be submitted in each State and Territory to the electors qualified to vote for the election of members of the House of Representatives.

But if either House passes any such proposed law by an absolute majority, and the other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, and if after an interval of three months the first-mentioned House in the same or the next session again passes the proposed law by an absolute majority with or without any amendment which has been made or agreed to by the other House, and such other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, the Governor-General may submit the proposed law as last proposed by the first-mentioned House, and either with or without any amendments subsequently agreed to by both Houses, to the electors in each State and Territory qualified to vote for the election of the House of Representatives.

When a proposed law is submitted to the electors the vote shall be taken in such manner as the Parliament prescribes. But until the qualification of electors of members of the House of Representatives becomes uniform throughout the Commonwealth, only one-half the electors voting for and against the proposed law shall be counted in any State in which adult suffrage prevails.

And if in a majority of the States a majority of the electors voting approve the proposed law, and if a majority of all the electors voting also approve the proposed law, it shall be presented to the Governor-General for the Queen's assent.

No alteration diminishing the proportionate representation of any State in either House of the Parliament, or the minimum number of representatives of a State in the House of Representatives, or increasing, diminishing, or otherwise altering the limits of the State, or in any manner affecting the provisions of the Constitution in relation thereto, shall become law unless the majority of the electors voting in that State approve the proposed law.

In this section 'Territory' means any territory referred to in Section One hundred and twenty two of this Constitution in respect of which there is in force a law allowing its representation in the House of Representatives.

SCHEDULE.

OATH.

I, *A.B.*, do swear that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law. SO HELP ME GOD!

AFFIRMATION.

I, *A.B.*, do solemnly and sincerely affirm and declare that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law.

(NOTE. *The name of the King or Queen of the United Kingdom of Great Britain and Ireland for the time being is to be substituted from time to time.*)

The Royal Proclamation

The preceding Act received the Royal assent on 9 July 1900. This made it lawful to declare that the people of Australia should be united in a Federal Commonwealth. This proclamation, made on 17 September 1900, constituted the Commonwealth as from 1 January 1901; it read as follows.

BY THE QUEEN.

A PROCLAMATION.

(Signed) VICTORIA R.

WHEREAS by an Act of Parliament passed in the Sixty-third and Sixty-fourth Years of Our Reign, intituled " An Act to constitute the Commonwealth of *Australia*," it is enacted that it shall be lawful for the Queen, with the advice of the Privy Council, to declare by Proclamation, that, on and after a day therein appointed, not being later than One year after the passing of this Act, the people of *New South Wales*, *Victoria*, *South Australia*, *Queensland* and *Tasmania*, and also, if Her Majesty is satisfied that the people of *Western Australia* have agreed thereto, of *Western Australia*, shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia.

And whereas We are satisfied that the people of *Western Australia* have agreed thereto accordingly.

We therefore, by and with the advice of Our Privy Council, have thought fit to issue this Our Royal Proclamation, and We do hereby declare that on and after the First day of *January* One thousand nine hundred and one, the people of *New South Wales*, *Victoria*, *South Australia*, *Queensland*, *Tasmania*, and *Western Australia* shall be united in a Federal Commonwealth under the name of the Commonwealth of *Australia*.

Given at Our Court at *Balmoral* this Seventeenth day of *September*, in the Year of Our Lord One thousand nine hundred, and in the Sixty-fourth Year of Our Reign.

GOD SAVE THE QUEEN!

CHAPTER 2

CLIMATE OF AUSTRALIA

General

The following information has been prepared by the Bureau of Meteorology, Department of Science. Previously, this chapter of the Year Book also included information about the physical geography of Australia. The information appeared most recently in Year Book No. 61 of 1975–76.

The climate of Australia is predominantly continental but the insular nature of the land mass is significant in producing modification of the continental pattern.

The island continent of Australia is relatively dry with 50 per cent of the area having a median rainfall of less than 300 millimetres per year and 80 per cent less than 600 millimetres. Extreme minimum temperatures are not as low as those recorded in other continents because of the absence of extensive mountain masses and because of the expanse of ocean to the south. However, extreme maxima are comparatively high, reaching 50°C over the inland, mainly due to the great east-west extent of the continent in the vicinity of the Tropic of Capricorn.

Climatic discomfort, particularly heat discomfort, is significant over most of Australia. During summer, prolonged high temperatures and humidity around the northern coasts and high temperatures over the inland cause physical discomfort. In winter, low temperatures and strong cold winds over the interior and southern areas can be severe for relatively short periods.

Climatic controls

The generally low relief of Australia causes little obstruction to the atmospheric systems which control the climate. A notable exception is the eastern uplands which modify the atmospheric flow.

In the winter half of the year (May–October) anticyclones, or high pressure systems, pass from west to east across the continent and often remain almost stationary over the interior for several days. These anticyclones may extend to 4,000 kilometres along their west-east axes. Northern Australia is then influenced by mild, dry south-east trade winds, and southern Australia experiences cool, moist westerly winds. The westerlies and the frontal systems associated with extensive depressions travelling over the Southern Ocean have a controlling influence on the climate of southern Australia during the winter season, causing rainy periods. Cold outbreaks, particularly in south-east Australia occur when cold air of Southern Ocean origin is directed northwards by intense depressions having diameters up to 2,000 kilometres. Cold fronts associated with the southern depressions, or with secondary depressions over the Tasman Sea, may produce large day-to-day changes in temperature in southern areas, particularly in south-east coastal regions.

In the summer half of the year (November–April) the anticyclones travel from west to east on a more southerly track across the southern fringes of Australia directing easterly winds generally over the continent. Fine, warmer weather predominates in southern Australia with the passage of each anticyclone. Heat waves occur when there is an interruption to the eastward progression of the anticyclone (blocking) and winds back northerly and later north-westerly. Northern Australia comes under the influence of summer disturbances associated with the southward intrusion of warm moist monsoonal air from north of the inter-tropical convergence zone, resulting in a hot rainy season.

Tropical cyclones develop over the seas to the north-west and the north-east of Australia in summer between November and April. Their frequency of occurrence and the tracks they follow vary greatly from season to season. On the average, about three Coral Sea cyclones per season directly affect the Queensland coast, and about two Indian Ocean cyclones affect the north-western coast. Tropical cyclones approaching the coast usually produce very heavy rain in coastal areas. Some cyclones move inland, losing intensity but still producing widespread heavy rainfall. Individual cyclonic systems may control the weather over northern Australia for periods extending to three weeks.

Rainfall

Annual. The annual 10, 50 and 90 percentile* rainfall maps are shown on plates 2, 3 and 4 respectively. The area of lowest rainfall is east of Lake Eyre in South Australia, where the median (50 percentile) rainfall is only about 100 millimetres. Murnpeowie, with 70 years of record, has a median annual rainfall of 101 millimetres. Another very low rainfall area is in Western Australia in the Giles–Warburton Range region, which has a median annual rainfall of about 150 millimetres. A vast region extending from the west coast near Shark Bay across the interior of Western Australia and South Australia to south-west Queensland and north-west New South Wales has a median annual rainfall of less than 200 millimetres. This region is not normally exposed to moist air masses for extended periods and rainfall is irregular, averaging only one or two days per month. However, in favourable synoptic situations, which occur infrequently over extensive parts of the region, up to 400 millimetres of rain may fall within a few days and result in widespread flooding.

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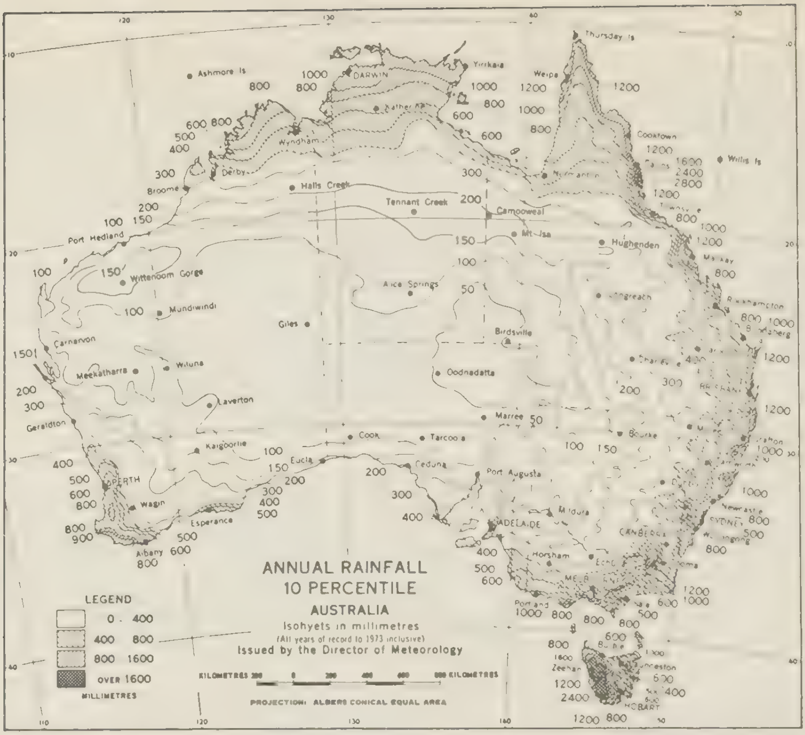
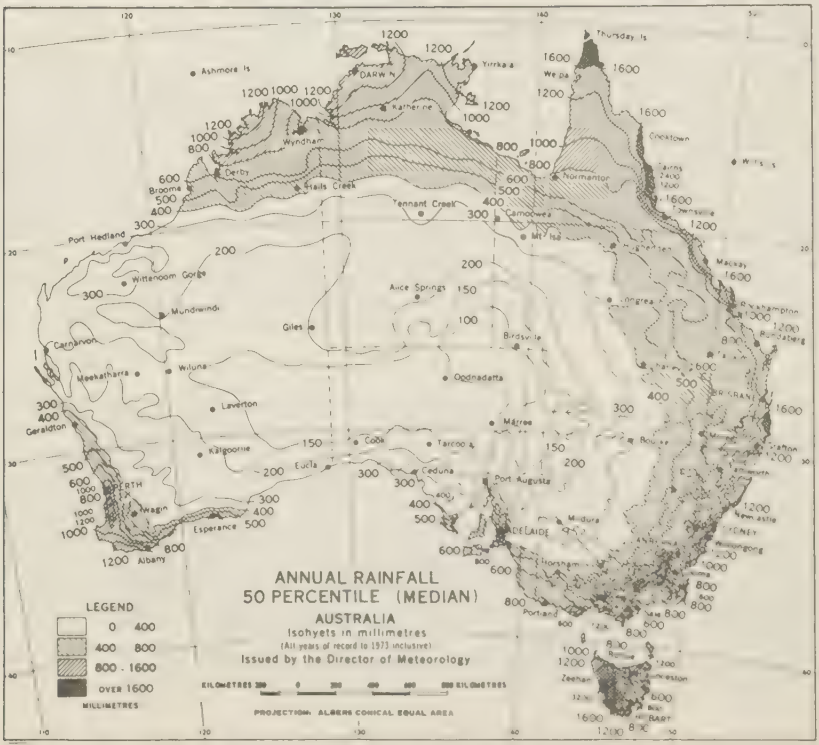
* The amounts that are not exceeded by 10, 50 and 90 per cent of all recordings are the 10, 50 and 90 percentiles or the first, fifth and ninth deciles respectively. The 50 percentile is usually called the median.



ANNUAL RAINFALL
10 PERCENTILE
AUSTRALIA
Isohyets in millimetres
(All years of record to 1973 inclusive)
Issued by the Director of Meteorology

LEGEND
0 - 400
400 800
800 1600
OVER 1600
MILLIMETRES
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is
DARWIN
Yirrkala
Weipa
Katherine
Wyndham
Cooktown
Willis Is
Derby
Normanton
Cairns
Broome
Halls Creek
Tennant Creek
Camooweal
Townsville
Mt Isa
Port Hedland
Hughenden
Mackay
Wittenoom Gorge
Alice Springs
Mundiwindi
Longreach
Rockhampton
Giles
Bundaberg
Birdsville
Carnarvon
Charleville
Meekatharra
Wiluna
Oodnadatta
BRISBANE
Laverton
Geraldton
Marree
Bourke
Kalgoorlie
Cook
Tarcoola
Grafton
Eucla
Ceduna
PERTH
Port Augusta
Wagin
Mildura
Newcastle
Esperance
ADELAIDE
SYDNEY
Wollongong
CANBERRA
Albany
Horsham
MELBOURNE
Portland
Zeehan
Launceston
HOBART



ANNUAL RAINFALL
50 PERCENTILE (MEDIAN)
AUSTRALIA
Isohyets in millimetres
(All years of record to 1973 inclusive)
Issued by the Director of Meteorology

LEGEND
0 400
400 800
800 - 1600
OVER 1600
MILLIMETRES
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is
DARWIN
Yirrkala
Weipa
Katherine
Wyndham
Cooktown
Derby
Normanton
Broome
Halls Creek
Cairns
Tennant Creek
Camooweal
Townsville
Mt Isa
Port Hedland
Hughenden
Mackay
Wittenoom Gorge
Alice Springs
Longreach
Mundiwindi
Rockhampton
Giles
Bundaberg
Birdsville
Carnarvon
Meekatharra
Wiluna
Oodnadatta
BRISBANE
Laverton
Geraldton
Marree
Bourke
Kalgoorlie
Cook
Tarcoola
Eucla
Ceduna
PERTH
Port Augusta
Wagin
Mildura
Newcastle
Esperance
ADELAIDE
SYDNEY
Wollongong
Albany
Horsham
Portland
Zeehan
Launceston
HOBART

PLATES 2 and 3

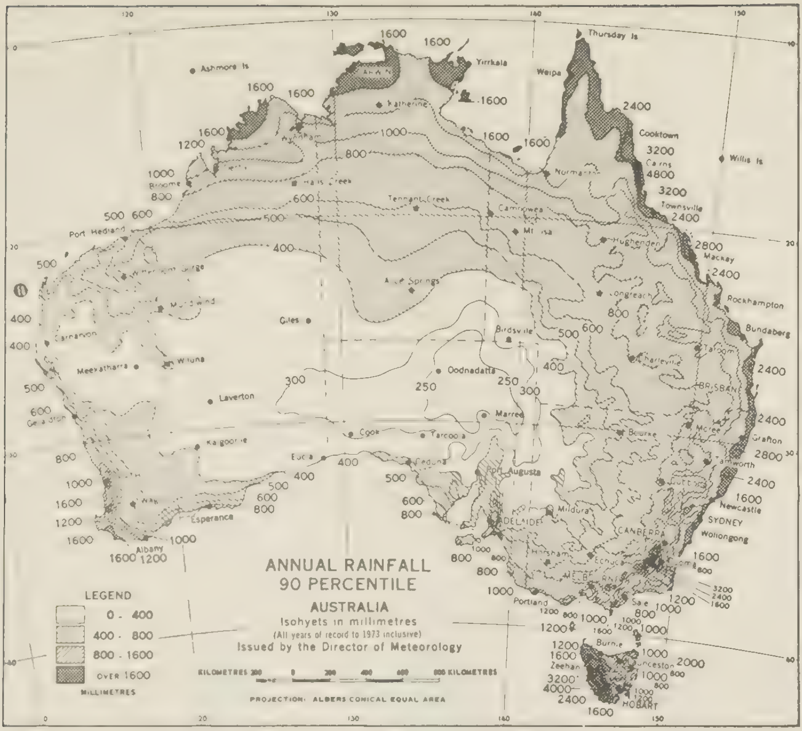

ANNUAL RAINFALL
90 PERCENTILE
AUSTRALIA
Isohyets in millimetres
(All years of record to 1973 inclusive)
Issued by the Director of Meteorology
LEGEND
0 - 400
400 - 800
800 - 1600
OVER 1600
MILLIMETRES
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is
Yirrkala
Weipa
Katherine
Wyndham
Cooktown
Cairns
Townsville
Willis Is
Normanton
Broome
Halls Creek
Tennant Creek
Camooweal
Mt Isa
Port Hedland
Hughenden
Mackay
Alice Springs
Longreach
Rockhampton
Carnarvon
Meekatharra
Wiluna
Giles
Birdsville
Bundaberg
Charleville
Oodnadatta
Taroom
Brisbane
Laverton
Marree
Moree
Grafton
Geraldton
Cook
Tarcoola
Bourke
Tamworth
Kalgoorlie
Eucla
Ceduna
Port Augusta
Newcastle
Esperance
Mildura
Sydney
Adelaide
Wollongong
Albany
Canberra
Horsham
Echuca
Melbourne
Portland
Sale
Burnie
Zeehan
Launceston
Hobart
4800
4000
3200
2800
2400
2000
1600
1200
1000
800
600
500
400
300
250

PLATE 4

The region with the highest median annual rainfall is the east coast of Queensland between Cairns and Cardwell, where Tully's median is highest (4,400 millimetres). The mountainous region of western Tasmania also has a high annual rainfall, with 3,600 millimetres at Lake Margaret. In the mountainous areas of north-east Victoria and some parts of the east coastal slopes there are small pockets with median annual rainfall greater than 2,500 millimetres, but the map scale is too small for these to be shown.

The Snowy Mountains area in New South Wales also has a particularly high rainfall. The highest median annual rainfall isohyet drawn for this region is 3,200 millimetres, and it is likely that small areas have a median annual rainfall approaching 4,000 millimetres on the western slopes above 2,000 metres elevation. (Gaffney 1971 (i)).

The following table shows the area distribution of the median annual rainfall derived from the map in Plate 3.

AREA DISTRIBUTION OF MEDIAN ANNUAL RAINFALL: AUSTRALIA
(Per cent)

Median annual rainfall	*W.A.*	*N.T.*	*S.A.*	*Qld*	*N.S.W.(a)*	*Vic.*	*Tas.*	*Aust.*
Under 200 mm . .	43.5	15.5	74.2	10.2	8.0	..	..	29.6
200 to 300 mm .	29.6	35.6	13.5	13.0	20.3	6.3	..	22.9
300 „ 400 „ .	10.5	9.0	6.8	12.3	19.0	19.2	..	11.2
400 „ 500 „ .	4.3	6.6	3.2	13.5	12.4	11.8	..	7.6
500 „ 600 „ .	3.1	5.8	1.8	11.6	11.3	14.1	12.2	6.6
600 „ 800 „ .	4.6	11.6	0.5	20.5	15.1	24.5	18.2	10.7
800 „ 1,200 „ .	3.7	9.6	..	12.6	11.3	17.7	25.0	7.7
Above 1,200 „ .	0.7	6.3	..	6.3	2.6	6.4	44.6	3.7
Total . .	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(*a*) Includes Australian Capital Territory.

Seasonal. As outlined under the heading of Climatic Controls, the rainfall pattern is strongly seasonal in character with a winter rainfall regime in the south and a summer regime in the north.

The dominance of rainfall over other climatic elements in determining the growth of specific plants in Australia has led to the development of a climatic classification based on two main parameters. These parameters are median annual rainfall and seasonal rainfall incidence (Gaffney 1971 (ii)). Plate 5, page 28, is a simplified version of the seasonal rainfall zones arising from this classification.

Evaporation and the concept of rainfall effectiveness are taken into account to some extent in this classification by assigning higher median annual rainfall limits to the summer zones than the corresponding uniform and winter zones. The main features of the seasonal rainfall are:

(*a*) marked wet summer and dry winter of northern Australia;
(*b*) wet summer and relatively dry winter of south-eastern Queensland and north-eastern New South Wales;
(*c*) uniform rainfall in south-eastern Australia—much of New South Wales, parts of eastern Victoria and in southern Tasmania;
(*d*) marked wet winter and dry summer of south-west Western Australia and (to a lesser extent) of much of the remainder of southern Australia directly influenced by westerly circulation;
(*e*) arid area comprising about half of the continent extending from the north-west coast of Western Australia across the interior and reaching the south coast at the head of the Great Australian Bight.

Variability. The adequate presentation of rainfall variability over an extensive geographical area is difficult. Probably the best measures are found in tables compiled for a number of individual stations in some of the Climatic Survey districts. These tables show the percentage chances of receiving specified amounts of rainfall in monthly, seasonal or annual time spans. Statistical indexes of rainfall variation based on several techniques have been used to compile maps showing main features of the variability of annual rainfall over Australia.

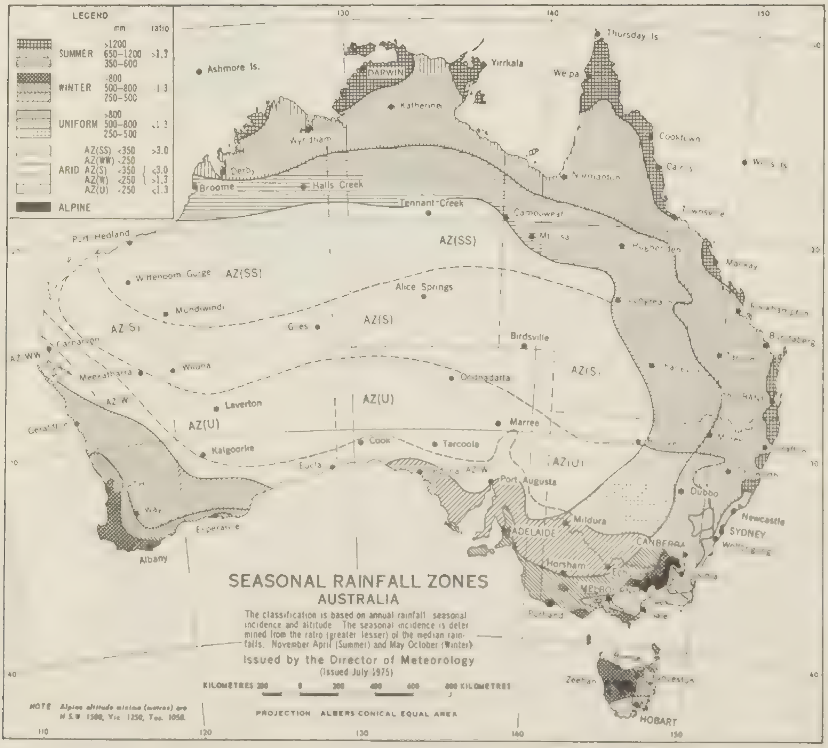

LEGEND
mm ratio
SUMMER >1200 650–1200 350–600 >1.3
WINTER >800 500–800 250–500 1.3
UNIFORM >800 500–800 250–500 <1.3
ARID AZ(SS) <350 >3.0
AZ(WW) <250
AZ(S) <350 <3.0
AZ(W) <250 >1.3
AZ(U) <250 <1.3
ALPINE
SEASONAL RAINFALL ZONES
AUSTRALIA
The classification is based on annual rainfall seasonal incidence and altitude The seasonal incidence is determined from the ratio (greater lesser) of the median rainfalls. November April (Summer) and May October (Winter)
Issued by the Director of Meteorology
(Issued July 1975)
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
NOTE Alpine altitude minima (metres) are N.S.W 1500, Vic 1250, Tas. 1050.
110
120
130
140
150
10
20
30
40
Ashmore Is.
DARWIN
Yirrkala
Thursday Is
Katherine
Wyndham
Derby
Broome
Halls Creek
Tennant Creek
Camooweal
Cooktown
Cairns
Normanton
Townsville
Mt Isa
Hughenden
Mackay
Rockhampton
Bundaberg
Port Hedland
Wittenoom Gorge
AZ(SS)
Alice Springs
Mundiwindi
AZ(S)
Giles
Carnarvon
AZ WW
Meekatharra
Wiluna
Birdsville
Oodnadatta
Laverton
AZ(U)
AZ W
Geraldton
Marree
Cook
Tarcoole
Kalgoorlie
Eucla
Perth
Port Augusta
Esperance
Albany
Dubbo
Mildura
ADELAIDE
Newcastle
SYDNEY
Wollongong
CANBERRA
Horsham
MELBOURNE
Portland
Zeehan
Launceston
HOBART

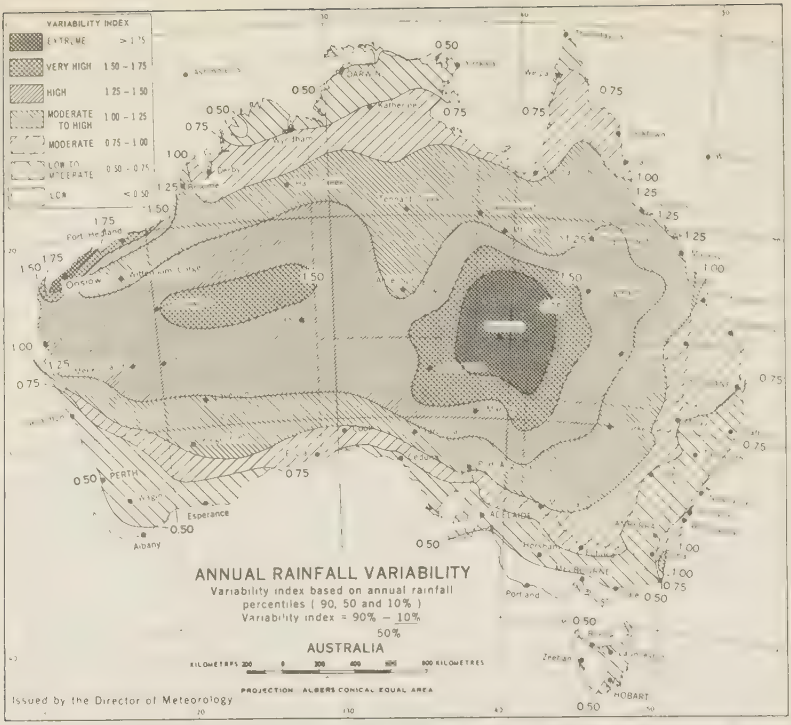
PLATE 5

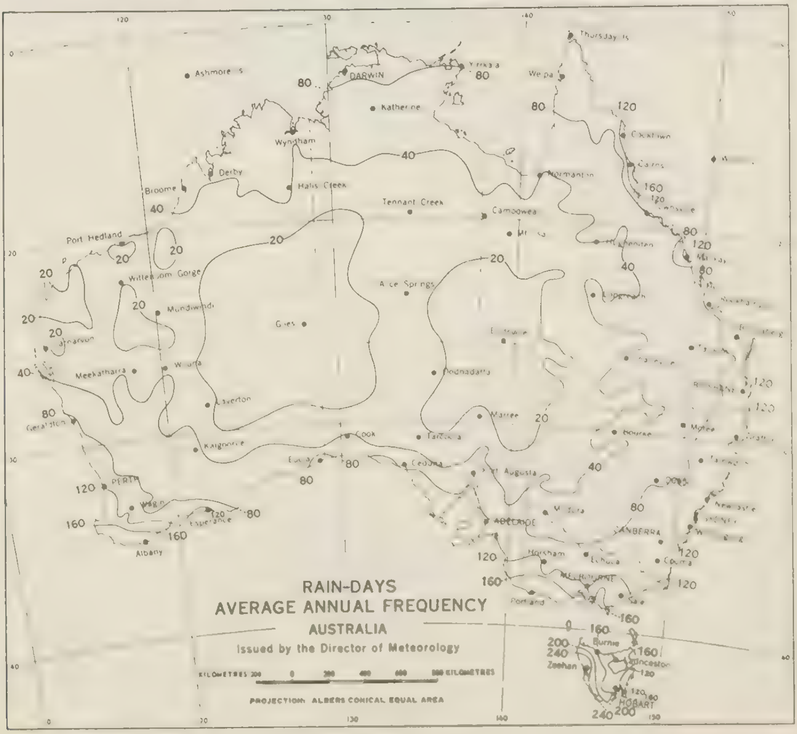
One index for assessing the variability of annual rainfall is given by the ratio of the 90–10 percentile range to the 50 percentile (median value) i.e. Variability Index $= \left\{\frac{90 - 10}{50}\right\}$ percentiles. Variability based on this relationship (Gaffney 1975) is shown in Plate 6, page 30. The region of high to extreme variability shown in Plate 6, lies mostly in the arid zone with summer rainfall incidence, AZ(S), defined in Plate 5, page 28. In the winter rainfall zones the variability is generally low to moderate as exemplified by the south-west of Western Australia. In the tropics, random cyclone visitations cause extremely great variations in rainfall from year to year: at Onslow (Western Australia), annual totals varied from 15 mm in 1912 to 1,085 mm in 1961 and, in the four consecutive years 1921 to 1924, the annual totals were 566, 69, 682 and 55 mm respectively. At Whim Creek (Western Australia), where 747 mm have been recorded in a single day, only 4 mm were received in the whole of 1924. Great variability can also occur in the heavy rainfall areas: at Tully (Queensland), the annual rainfalls have varied from 7,899 mm in 1950 to 2,489 mm in 1961.

Rainday frequency. The average number of days per year with rainfall of 0.2 mm or more is shown in Plate 7, page 30.

The frequency of rain-days exceed 150 per year in Tasmania (with a maximum of over 200 in western Tasmania), southern Victoria, parts of the north Queensland coast and in the extreme south-west of Western Australia. Over most of the continent the frequency is less than 50 rain-days per year. The area of low rainfall with high variability, extending from the north-west coast of Western Australia through the interior of the continent, has less than 25 rain-days per year. In the high rainfall areas of northern Australia the number of rain-days is about 80 per year, but heavier falls occur in this region than in southern regions.

Intensity. The highest rainfall intensities for some localities are shown in the first table on page 31. These figures represent intensities over only small areas around the recording points because turbulence and exposure characteristics of the measuring gauge may vary over a distance of a few metres. The highest 24-hour (9 a.m. to 9 a.m.) falls are listed by States in the second table on page 31. Most of the very high 24-hour falls (above 700 millimetres) have occurred in the coastal strip of Queensland, where a tropical cyclone moving close to mountainous terrain provides ideal conditions for spectacular falls. The highest 24-hour fall (907 millimetres) occurred at Crohamhurst, Queensland on 3 February 1893.


VARIABILITY INDEX
EXTREME > 1.75
VERY HIGH 1.50 – 1.75
HIGH 1.25 – 1.50
MODERATE TO HIGH 1.00 – 1.25
MODERATE 0.75 – 1.00
LOW TO MODERATE 0.50 – 0.75
LOW < 0.50
DARWIN
Katherine
Wyndham
Derby
Broome
Port Hedland
Onslow
Wittenoom Gorge
Tennant Creek
PERTH
Esperance
Albany
ADELAIDE
Horsham
MELBOURNE
Portland
Zeehan
HOBART
ANNUAL RAINFALL VARIABILITY
Variability index based on annual rainfall percentiles (90, 50 and 10%)
Variability index = 90% − 10% / 50%
AUSTRALIA
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Issued by the Director of Meteorology


Thursday Is
Ashmore Is
DARWIN
Weipa
Katherine
Wyndham
Derby
Broome
Halls Creek
Tennant Creek
Camooweal
Normanton
Cairns
Port Hedland
Wittenoom Gorge
Mundiwindi
Alice Springs
Giles
Carnarvon
Meekatharra
Wiluna
Laverton
Oodnadatta
Marree
Geraldton
Kalgoorlie
Cook
Tarcoola
Eucla
Ceduna
Port Augusta
PERTH
Wagin
Esperance
Albany
ADELAIDE
Horsham
MELBOURNE
Portland
CANBERRA
Echuca
Cooma
Bourke
Moree
Burnie
Launceston
Zeehan
HOBART
RAIN-DAYS
AVERAGE ANNUAL FREQUENCY
AUSTRALIA
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA

PLATES 6 and 7

HIGHEST RAINFALL INTENSITIES IN SPECIFIED PERIODS
(millimetres)

Station	*Period of record*	*Years of complete records*	*Period in hours*				
			1	*3*	*6*	*12*	*24*
			mm	mm	mm	mm	mm
Adelaide	1897–1967	67	69	133	141	141	141
Alice Springs	1951–1970	18	54	55	64	87	106
Brisbane	1911–1968	14	88	144	182	244	308
Broome	1948–1970	23	72	119	130	172	228
Canberra	1932–1970	35	51	68	71	89	138
Carnarvon	1956–1971	16	32	63	82	95	108
Charleville	1953–1971	19	42	66	75	111	142
Cloncurry	1953–1972	17	46	118	164	173	204
Darwin	1953–1970	15	88	101	109	152	191
Esperance	1963–1972	8	23	45	62	68	79
Hobart	1911–1976	63	28	56	87	117	168
Meekatharra	1953–1971	17	26	67	80	98	112
Melbourne	1878–1976	86	79	83	86	102	129
Mildura	1953–1976	22	49	60	65	65	91
Perth	1946–1971	24	32	38	47	64	93
Sydney	1913–1976	60	97	139	162	180	281
Townsville	1953–1970	16	87	111	122	161	275

Source: Pluviograph records in Bureau of Meteorology archives.

HIGHEST DAILY RAINFALLS
(all years to 1976 inclusive)

State	*Station*	*Date*	*Amount*
			mm
Queensland	Crohamhurst	3.2.1893	907
	Finch Hatton	18.2.1958	878
	Mount Dangar	20.1.1970	869
	Port Douglas	1.4.1911	801
Western Australia	Whim Creek	3.4.1898	747
	Fortescue	3.5.1890	593
New South Wales	Dorrigo	21.2.1954	809
	Cordeaux River	14.2.1898	574
Northern Territory	Roper Valley	15.4.1963	545
	Groote Eylandt	28.3.1953	513
Tasmania	Mathinna	5.4.1929	336
	Cullenswood	22.3.1974	352
Victoria	Balook	18.2.1951	275
	Hazel Park	1.12.1934	267
South Australia	Ardrossan	18.2.1946	206
	Oodnadatta	9.2.1977	200

Thunderstorms and hail. A thunder-day at a given location is a calendar day on which thunder is heard at least once. Plate 8, page 33 shows isopleths (isobronts) of the average annual number of thunder-days which varies from 80 per year near Darwin to less than 10 per year over parts of the southern regions. Convectional processes during the summer wet season cause high thunderstorm incidence in northern Australia. The generally high incidence (40-60 annually) over the eastern upland areas is produced mainly by orographic uplift of moist air streams.

Hail, mostly of small size (less than 10 millimetres diameter), occurs with winter/spring cold frontal activity in southern Australia. Summer thunderstorms, particularly over the uplands of eastern Australia, sometimes produce large hail (greater than 10 millimetres diameter). Hail capable of piercing light gauge galvanised iron occurs at irregular intervals and sometimes causes widespread damage.

Snow. Generally, snow covers much of the Australian Alps above 1,500 metres for varying periods from late autumn to early spring. Similarly, in Tasmania the mountains are covered fairly frequently above 1,000 metres in these seasons. The area, depth and duration are highly variable and in the altitude range 500–1,000 metres no snow falls in some years. Snowfalls at levels below 500 metres are occasionally experienced in southern Australia, particularly in the foothill areas of Tasmania and Victoria, but falls are usually light and short-lived. In some seasons parts of the eastern uplands above 1,000 metres from Victoria to south-eastern Queensland have been covered with snow for several weeks. In ravines around Mt Kosciusko (2,228 metres) small areas of snow may persist through summer but there are no permanent snowfields.

Temperature

Average temperatures. Average annual air temperatures as shown in plate 9, page 33 range from 28°C along the Kimberley coast in the extreme north of Western Australia to 4°C in the alpine areas of south-eastern Australia. Although annual temperature may be used for broad comparisons, monthly temperatures are required for detailed analyses.

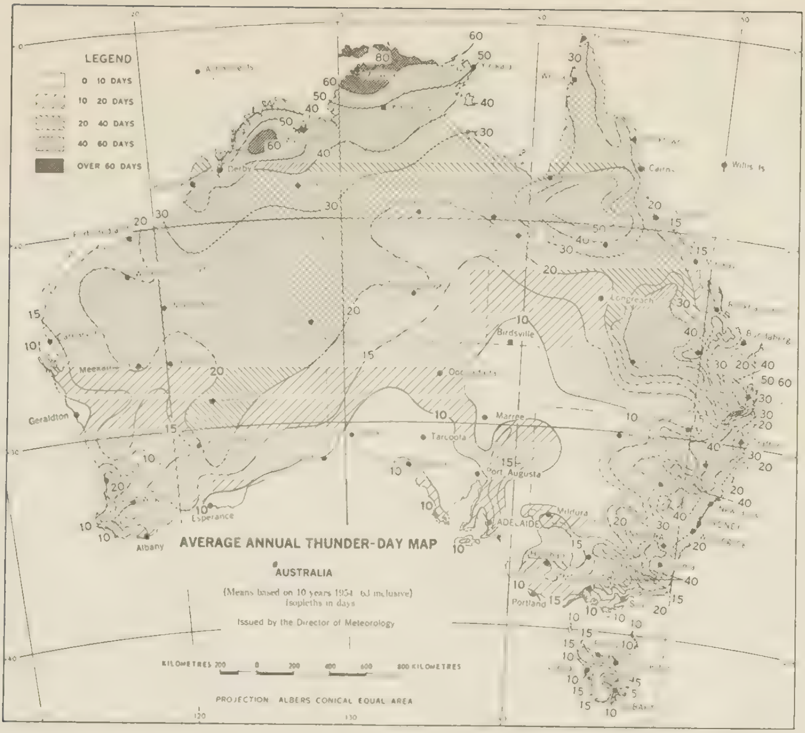
July is the month with the lowest average temperature in all parts of the continent. The months with the highest average temperature are January or February in the south and December in the north (except in the extreme north and north-west where it is November). The slightly lower temperatures of mid-summer in the north are due to the increase in cloud during the wet season.

Average monthly maxima. Maps of average maximum and minimum temperatures for the months of January and July are shown in plates 10–13 inclusive, pages 34–35.

In January, average maximum temperatures exceed 35°C over a vast area of the interior and exceed 40°C over appreciable areas of the north-west. The consistently hottest part of Australia is around Marble Bar, Western Australia (150 kilometres south-east of Port Hedland) where the average is 41 C and daily maxima during summer may exceed 40 C consecutively for several weeks at a time.

The marked gradients of isotherms of maximum temperature in summer in coastal areas, particularly along the south and west coasts, are due to the penetration inland of fresh sea breezes initiated by the sharp temperature discontinuities between the land and sea surfaces. There are also gradients of a complex nature in south-east coastal areas caused primarily by the uplands.

In July a more regular latitudinal distribution of average maxima is evident. Maxima range from 30°C near the north coast to 5°C in the alpine areas of the south-east.



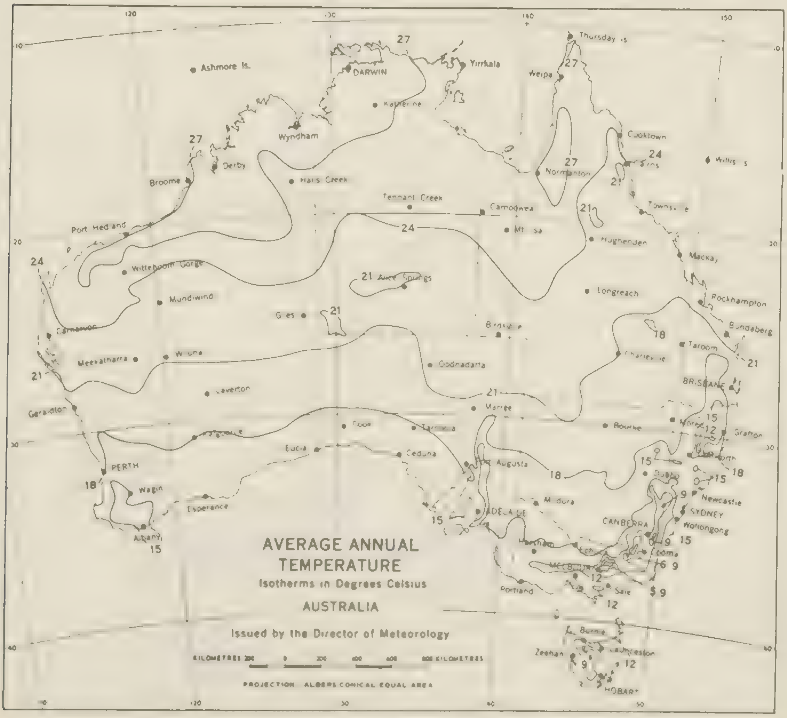
AVERAGE ANNUAL THUNDER-DAY MAP

AUSTRALIA

(Means based on 10 years 1954–63 inclusive)
Isopleths in days

Issued by the Director of Meteorology

LEGEND
0 10 DAYS
10 20 DAYS
20 40 DAYS
40 60 DAYS
OVER 60 DAYS
Derby
Cairns
Willis Is
Longreach
Birdsville
Geraldton
Meekatharra
Marree
Tarcoola
Port Augusta
Mildura
ADELAIDE
Esperance
Albany
Portland
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA



AVERAGE ANNUAL TEMPERATURE

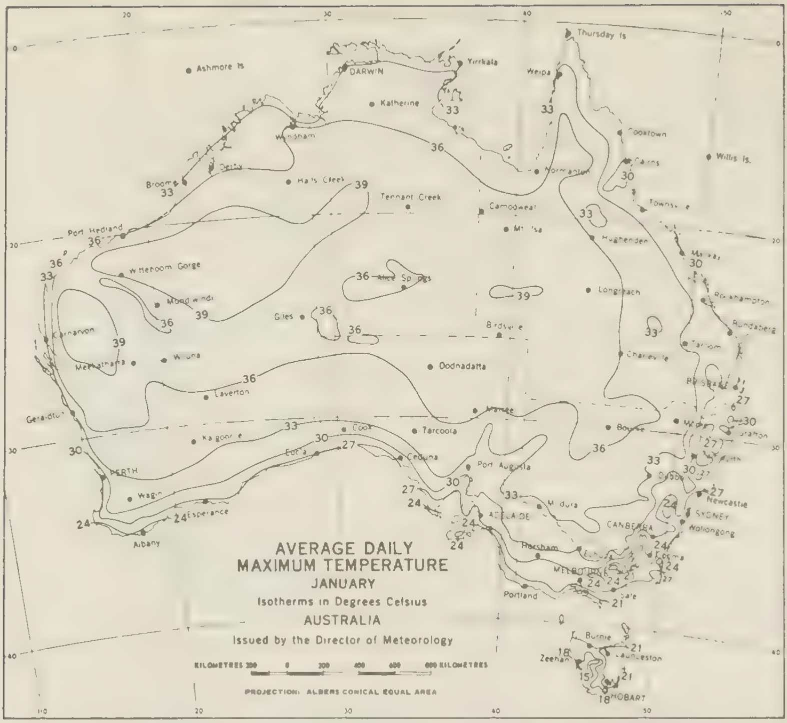
Isotherms in Degrees Celsius

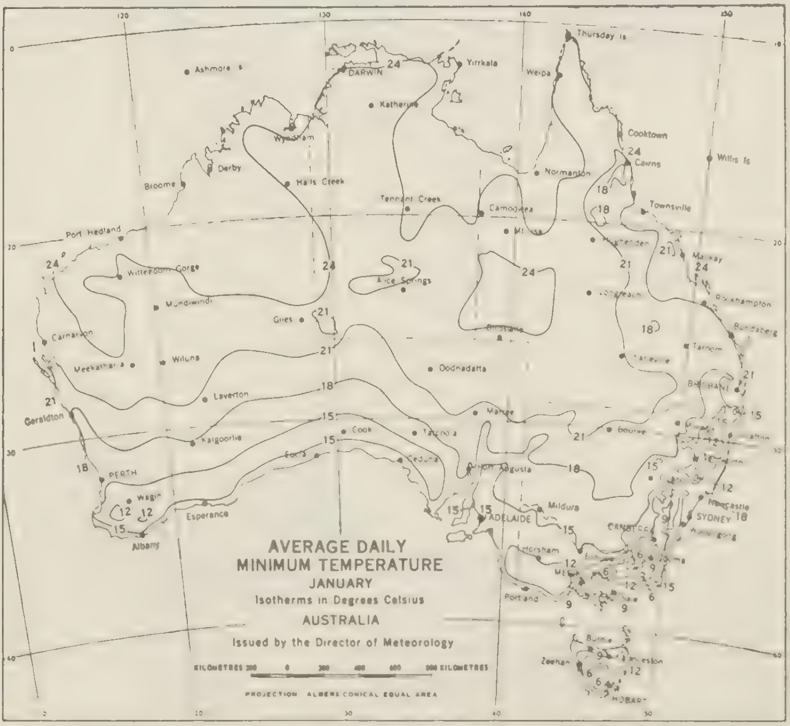
AUSTRALIA

Issued by the Director of Meteorology

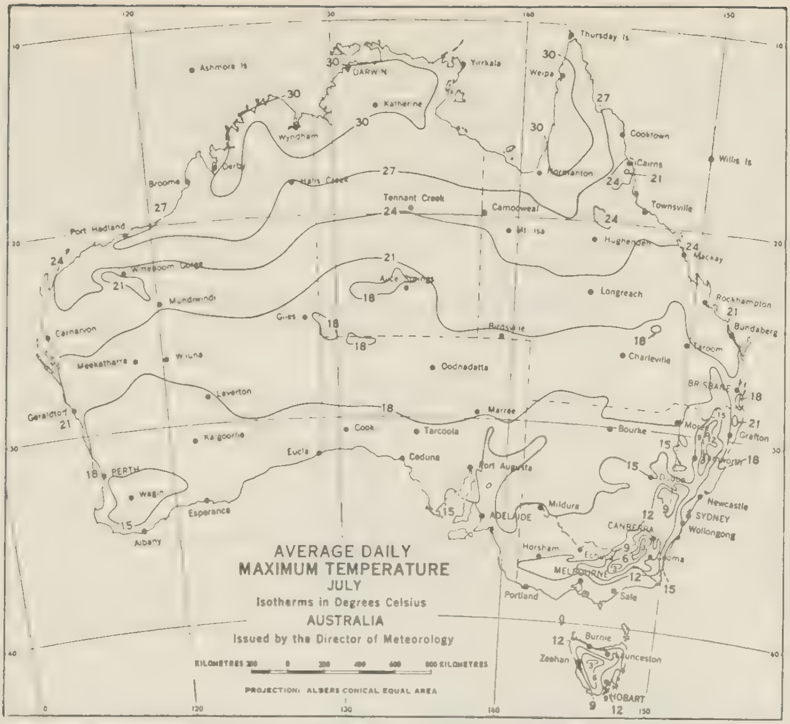
Thursday Is
Ashmore Is
DARWIN
Yirrkala
Weipa
Katherine
Wyndham
Cooktown
Willis Is
Derby
Broome
Halls Creek
Normanton
Cairns
Tennant Creek
Camooweal
Townsville
Port Hedland
Mt Isa
Hughenden
Mackay
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Birdsville
Bundaberg
Carnarvon
Charleville
Taroom
Meekatharra
Wiluna
Oodnadatta
BRISBANE
Laverton
Marree
Geraldton
Bourke
Grafton
Kalgoorlie
Cook
Tarcoola
Eucla
Ceduna
PERTH
Augusta
Wagin
Mildura
Newcastle
Esperance
ADELAIDE
SYDNEY
CANBERRA
Wollongong
Albany
Horsham
Cooma
MELBOURNE
Portland
Sale
Burnie
Zeehan
Launceston
HOBART
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA

PLATES 8 and 9

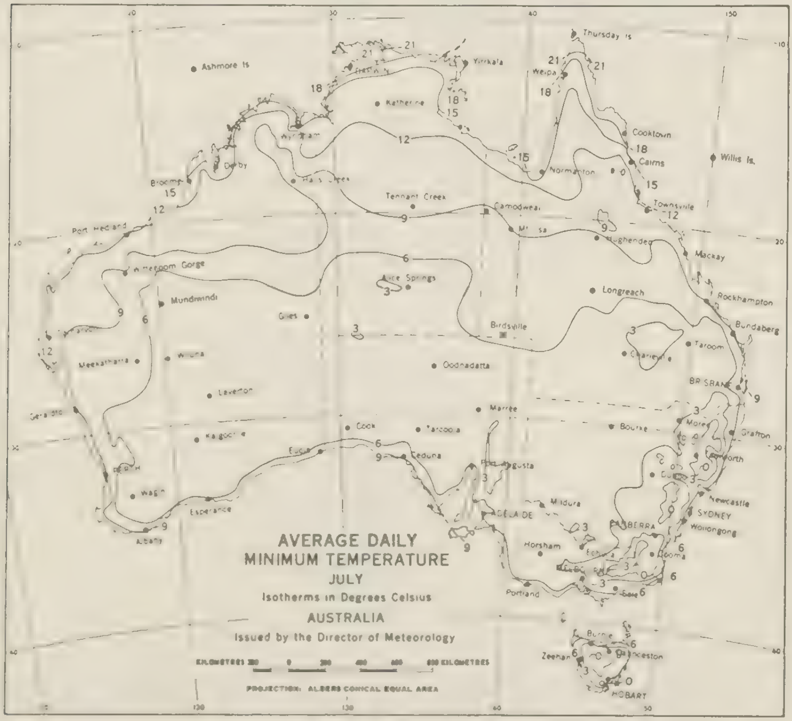

AVERAGE DAILY
MAXIMUM TEMPERATURE
JANUARY
Isotherms in Degrees Celsius
AUSTRALIA
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is
DARWIN
Yirrkala
Weipa
Katherine
Cooktown
Willis Is.
Wyndham
Derby
Cairns
Broome
Halls Creek
Tennant Creek
Normanton
Townsville
Camooweal
Mt Isa
Port Hedland
Hughenden
Mackay
Wittenoom Gorge
Mundiwindi
Alice Springs
Longreach
Rockhampton
Giles
Birdsville
Bundaberg
Carnarvon
Meekatharra
Wiluna
Oodnadatta
Charleville
Taroom
Laverton
BRISBANE
Geraldton
Marree
Bourke
Moree
Kalgoorlie
Cook
Tarcoola
Eucla
Ceduna
Port Augusta
PERTH
Wagin
Mildura
Dubbo
Newcastle
SYDNEY
Wollongong
CANBERRA
Esperance
Albany
ADELAIDE
Horsham
MELBOURNE
Cooma
Portland
Sale
Burnie
Zeehan
Launceston
HOBART
39
36
33
30
27
24
21
18
15


AVERAGE DAILY
MINIMUM TEMPERATURE
JANUARY
Isotherms in Degrees Celsius
AUSTRALIA
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is
DARWIN
Yirrkala
Weipa
Katherine
Cooktown
Willis Is
Wyndham
Derby
Cairns
Broome
Halls Creek
Normanton
Tennant Creek
Camooweal
Townsville
Mt Isa
Port Hedland
Hughenden
Mackay
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Birdsville
Bundaberg
Carnarvon
Charleville
Taroom
Meekatharra
Wiluna
Oodnadatta
BRISBANE
Laverton
Marree
Geraldton
Kalgoorlie
Cook
Tarcoola
Bourke
Eucla
Ceduna
Port Augusta
PERTH
Wagin
Esperance
Albany
ADELAIDE
Mildura
Newcastle
SYDNEY
CANBERRA
Wollongong
Horsham
Cooma
Portland
Sale
Burnie
Zeehan
Launceston
HOBART
24
21
18
15
12
9
6

PLATES 10 and 11


AVERAGE DAILY
MAXIMUM TEMPERATURE
JULY
Isotherms in Degrees Celsius
AUSTRALIA
Issued by the Director of Meteorology

KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is
DARWIN
Yirrkala
Weipa
Katherine
Wyndham
Cooktown
Willis Is
Derby
Broome
Halls Creek
Normanton
Cairns
Townsville
Tennant Creek
Camooweal
Mt Isa
Port Hedland
Hughenden
Mackay
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Bundaberg
Carnarvon
Birdsville
Taroom
Meekatharra
Wiluna
Charleville
Oodnadatta
BRISBANE
Laverton
Geraldton
Marree
Moree
Grafton
Kalgoorlie
Cook
Tarcoola
Bourke
Eucla
Ceduna
Port Augusta
Armidale
PERTH
Dubbo
Wagin
Mildura
Newcastle
Esperance
ADELAIDE
SYDNEY
Albany
CANBERRA
Wollongong
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Burnie
Zeehan
Launceston
HOBART
30
27
24
21
18
15
12
9
6
3


AVERAGE DAILY
MINIMUM TEMPERATURE
JULY
Isotherms in Degrees Celsius
AUSTRALIA
Issued by the Director of Meteorology

KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is
Yirrkala
Weipa
Katherine
Wyndham
Cooktown
Cairns
Willis Is.
Derby
Broome
Halls Creek
Normanton
Townsville
Tennant Creek
Camooweal
Port Hedland
Mt Isa
Hughenden
Mackay
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Birdsville
Bundaberg
Carnarvon
Charleville
Taroom
Meekatharra
Wiluna
Oodnadatta
BRISBANE
Laverton
Marree
Geraldton
Moree
Bourke
Grafton
Kalgoorlie
Cook
Tarcoola
Eucla
Ceduna
Port Augusta
Armidale
PERTH
Dubbo
Wagin
Newcastle
Mildura
Esperance
ADELAIDE
SYDNEY
Albany
CANBERRA
Wollongong
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Burnie
Zeehan
Launceston
HOBART
21
18
15
12
9
6
3
0

PLATES 12 and 13

Extreme maxima. Temperatures have exceeded 45°C at nearly all inland stations more than 150 kilometres from the coast and at many places on the north-west and south coasts. Temperatures have exceeded 50°C at some inland stations and at a few near the coast. It is noteworthy that Eucla on the south coast has recorded 50.7°C, the highest temperature in Western Australia. This is due to the long trajectory over land of hot north-west winds from the Marble Bar area. Although the highest temperature recorded in Australia was 53.1 C at Cloncurry (Queensland), more stations have exceeded 50 C in western New South Wales than in other areas due to the long land trajectory of hot winds from the north-west interior of the continent.

Extreme maximum temperatures recorded at selected stations, including the highest recorded in each State, are shown in the table below.

EXTREME MAXIMUM TEMPERATURES
(All years to 1976 inclusive)

Station	*°C*	*Station*	*°C*
Western Australia—		New South Wales—	
Eucla	50.7	Bourke	52.8
Roebourne	47.8	White Cliffs	51.1
Marble Bar	49.2	Walgett	50.1
Northern Territory—		Wilcannia	50.0
Charlotte Waters (near Finke)	48.2	Menindee	49.7
South Australia—		Australian Capital Territory—	
Oodnadatta	50.7	Canberra	42.2
Kyancutta	49.3	Victoria—	
Queensland—		Mildura	50.8
Cloncurry	53.1	Tasmania—	
Winton	50.7	Bushy Park	40.9
Birdsville	50.0	Hobart	40.8

Extreme minima. The lowest temperatures in Australia have been recorded in the Snowy Mountains, where Charlotte Pass (elevation 1,760 metres) has recorded −22.2°C. Temperatures have fallen below −5°C at most inland places south of the tropics and at some places within a few kilometres of southern coasts. At Eyre, on the south coast of Western Australia, a minimum of −3.9 C has been recorded, and at Swansea, on the east coast of Tasmania, the temperature has fallen as low as −4.4°C.

In the tropics, extreme minima below 0°C have been recorded at many places away from the coasts as far north as Herberton, Queensland (−3.3°C). Even very close to the tropical coastline temperatures have fallen to 0°C, a low recording being −0.8°C for Mackay.

The next table shows extreme minimum temperatures recorded at specified stations, including the lowest recorded in each State.

EXTREME MINIMUM TEMPERATURES
(All years to 1976 inclusive)

Station	*°C*	*Station*	*°C*
Western Australia—		New South Wales—	
Dwellingup	−7.0	Charlotte Pass	−22.2
Booylgoo	−6.7	Kiandra	−20.6
Salmon Gums	−5.4	Kosciusko Hotel	−14.4
Northern Territory—		Cooma	−11.2
Alice Springs	−7.5	Australian Capital Territory—	
Tempe Downs	−6.0	Canberra	−10.0
South Australia—		Victoria—	
Yongala	−8.2	Mount Hotham	−12.8
Kyancutta	−7.0	Omeo	−11.7
		Bairnsdale	−7.2
Queensland—		Tasmania—	
Stanthorpe	−11.0	Oatlands	−12.8
Nanango	−9.3	Bothwell	−12.5

Heat waves. Periods with a number of successive days having a temperature higher than 40°C are relatively common in summer over parts of Australia. With the exception of the north-west coast of Western Australia, however, most coastal areas rarely experience more than three successive days of such conditions. The frequency increases inland, and periods of up to ten successive days have been recorded at many inland stations. This figure increases in western Queensland and north-western Western Australia to more than twenty days in places. The central part of the Northern Territory and the Marble Bar-Nullagine area of Western Australia have recorded the most prolonged heat waves.

Heat waves are experienced in the coastal areas from time to time. During 11–14 January 1939, for example, a severe heat wave affected south-eastern Australia: Adelaide had a record of 47.6°C on the 12th, Melbourne a record of 45.6°C on the 13th and Sydney a record of 45.3°C on the 14th.

Frost. Frost can cause serious losses in agricultural crops, and numerous climatic studies have been made in Australia relating to specific crops cultivated in local areas. Foley (1945 (i)) made a comprehensive study of the incidence of frost at stations recording minimum temperature. Since Foley's work was published, the number of stations recording minimum temperatures has increased appreciably.

Under calm conditions, overnight temperatures at ground level are often as much as 5°C lower than those measured in the instrument screen (base height 1.1 metre) and differences of 10°C have been recorded. Only a small number of stations measure minima at ground level, the lowest recordings being −15.1°C at Canberra and −14.6°C at Stanthorpe (Queensland). Lower readings may be recorded in alpine areas.

Frost frequency depends on location and orography, and even on minor variations in the contour of the land. The parts of Australia which are most subject to frost are the eastern uplands from north-eastern Victoria to the western Darling Downs in southern Queensland. Most stations in this region experience more than ten nights a month with readings of 0°C (or under) for three to five months of the year. On Tasmania's Central Plateau similar conditions occur for three to six months of the year. Frosts may occur within a few miles of the coasts except on the Northern Territory and most of the north Queensland coasts.

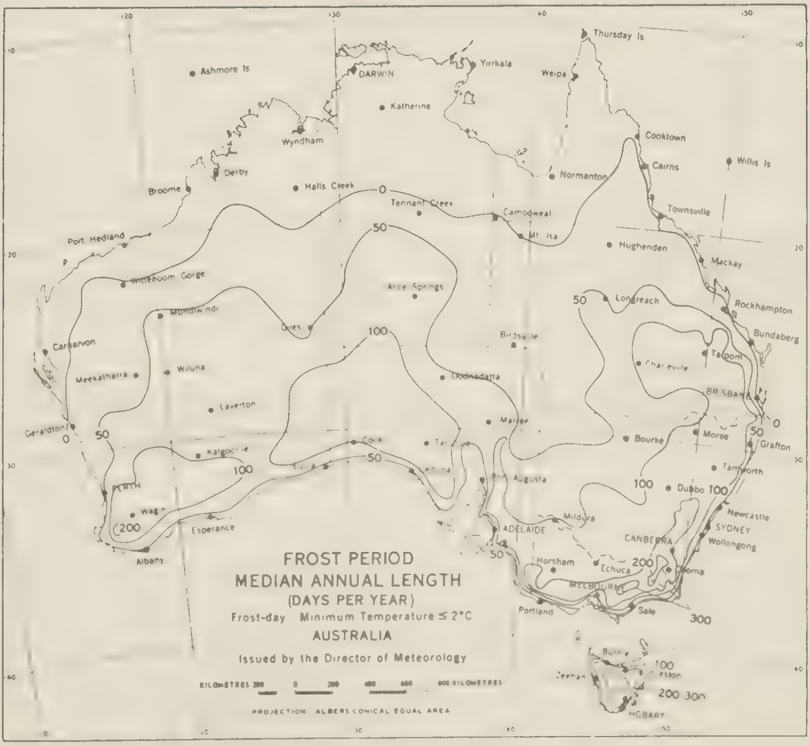

FROST PERIOD
MEDIAN ANNUAL LENGTH
(DAYS PER YEAR)
Frost-day Minimum Temperature ≤ 2°C
AUSTRALIA
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is
DARWIN
Yirrkala
Weipa
Katherine
Wyndham
Cooktown
Cairns
Willis Is
Derby
Normanton
Broome
Halls Creek
Tennant Creek
Camooweal
Townsville
Port Hedland
Mt Isa
Hughenden
Mackay
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Birdsville
Bundaberg
Carnarvon
Charleville
Taroom
Meekatharra
Wiluna
Oodnadatta
BRISBANE
Laverton
Marree
Geraldton
Bourke
Moree
Grafton
Cook
Tarcoola
Kalgoorlie
Port Augusta
Tamworth
PERTH
Dubbo
Wagin
Mildura
Newcastle
Esperance
ADELAIDE
SYDNEY
CANBERRA
Wollongong
Albany
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Burnie
Launceston
Zeehan
HOBART
0
50
100
200
300
0
50
100
50
100
50
0
50
100
200
200
300
100
200
300
120
130
140
150
10
20
30
40

PLATE 14

Regions in which frosts may occur at any time of the year comprise most of Tasmania, large areas of the tablelands of New South Wales, much of inland Victoria, particularly the north-east, and a small part of the extreme south-west of Western Australia. Over most of the interior of the continent, and on the highlands of Queensland as far north as the Atherton Plateau, frosts commence in April and end in September. Minimum temperatures below 0°C are experienced in most of the subtropical interior in June and July.

The length of the frost period for the year is taken as the number of days between the first and last recording of an air temperature of 2°C or less. The median duration of the frost period in days per year is shown in plate 14, page 37.

The median frost period over the continent varies from over 200 days per year in the south-eastern uplands areas south of the Hunter Valley to zero in northern Australia. In the southern regions of the continent the annual frost period generally decreases from about 100 days inland to below 50 days towards the coast. However, there are appreciable spatial variations depending mainly on local orography. In Tasmania the frost period exceeds 300 days on the uplands and decreases to 100 days near the coast.

The table below includes the average annual frequency of minima of 2°C or less for a wide selection of stations, particularly those prone to frosts. These data show the high spatial variability of frost frequency across Australia. The south-eastern alpine areas, as represented by Kiandra (elevation 1,400 metres), have a frequency exceeding 200. At Kalgoorlie the average annual frequency is 27, at Alice Springs 33, Charleville 37, Canberra 105 and Melbourne 19.

FROST FREQUENCY

Average annual number of frosty nights (screen minimum $\leqslant 2$°C) and heavy frosts ($\leqslant 0$°C)

Station	*Period of record*	*Altitude (metres)*	*Number of frosty nights*	*Number of heavy frosts*
Adelaide (airport)	1955–70	10	8	1
Alice Springs	1940–71	550	33	11
Ballan (near Ballarat)	1944–64	500	63	20
Birdsville	1957–71	40	7	1
Brisbane (Archerfield airport)	1939–49	10	9	3
Canberra	1939–71	570	105	65
Ceduna	1939–71	20	18	5
Charleville	1942–71	290	37	15
Hobart (Risdon)	1957–70	40	25	5
Kalgoorlie	1939–71	360	27	7
Kiandra	1957–69	1,400	226	176
Loch Valley (E of Melbourne)	1943–59	500	101	53
Melbourne (Essendon airport)	1939–71	80	19	4
Mount Gambier	1942–71	60	33	10
Perth (airport)	1944–71	20	5	0
Walgett	1957–71	130	30	7

The next table shows percentiles (20, 50 and 80) of the annual number of frosts at selected stations. The difference between the 20 and 80 percentile figures relative to the 50 percentile (median) shows that there is great variability in the number of frosts at individual stations from year to year.

FROST VARIABILITY

Annual number of frosty nights (≤2°C) and heavy frosts (≤0°C) 20, 50 and 80 percentiles

Station	*Period of record*	*Altitude (metres)*	*Number of frosty nights*			*Number of heavy frosts*		
			Percentiles			*Percentiles*		
			20	*50*	*80*	*20*	*50*	*80*
Alice Springs	1941–71	550	16	27	37	5	8	14
Bathurst	1957–71	705	83	101	111	51	69	76
Beechworth (SW of Albury)	1957–71	550	51	58	73	16	22	26
Bridgetown	1957–69	155	30	43	53	7	11	19
Canberra	1939–71	570	87	105	116	48	64	75
Charleville	1943–71	290	21	35	45	6	14	19
Dubbo	1957–71	262	39	43	50	10	14	27
Hay	1957–71	93	21	34	37	5	9	13
Kalgoorlie	1942–71	360	15	22	31	2	4	9
Kiandra	1957–68	1,400	206	228	250	163	175	193
Kyancutta	1957–69	58	31	39	40	7	14	20
Mount Gambier	1942–71	60	20	27	34	3	6	13
Mundiwindi	1957–69	575	8	11	29	2	3	11
Nhill (near Horsham)	1957–71	129	41	47	58	12	17	26
Oatlands	1957–71	435	85	101	111	38	46	57
Omeo	1957–71	660	115	132	138	59	74	83
Richmond (NW of Sydney)	1953–71	20	23	30	40	6	10	13
Sale	1945–71	5	25	34	45	5	11	17
Swansea	1957–71	8	38	45	61	7	13	19
Wandering (SE of Perth)	1957–69	335	41	57	70	13	25	34
Waratah	1957–71	627	104	117	131	35	44	53
Yongala (E of Port Pirie)	1957–69	515	62	75	90	32	39	52

By convention, a heavy frost is taken as corresponding to a minimum screen temperature of 0°C or less—see the two previous tables. The regions of mainland Australia most prone to heavy frosts are the eastern uplands and adjacent areas extending from Victoria through New South Wales to south-eastern Queensland. Stations above 1,000 metres in altitude in the southern parts of these uplands have more than 100 heavy frosts annually, and in the upland areas below 1,000 metres the annual frequency ranges from 100 to about 20. Over the remainder of southern Queensland, New South Wales and Victoria, although there are great spatial variations, the average annual frequency of heavy frosts typically ranges from about 20 inland to 10 towards the coast. Some places on the coast experience heavy frosts (for example Portland, Victoria, with 3 annually).

In Tasmania, uplands above 1,000 metres have more than 100 heavy frosts annually, and in neighbouring areas the frequency is about 100 decreasing to 20 towards the coasts. Even some coastal stations have a relatively high frequency (Swansea, for example, has 13).

The southern half of Western Australia, the whole of South Australia, and the Alice Springs district of the Northern Territory experience heavy frosts. Differences in annual frequencies between places are great but, in general, the frequency is about 10 inland, decreasing towards the coasts. Some places average more than 20 heavy frosts annually, notably Wandering, Western Australia (21) and Yongala, South Australia (29). At Alice Springs the annual average frequency is 11.

Humidity

Australia is a dry continent in terms of the water vapour content (humidity) of the air. Humidity is measured at Bureau of Meteorology observational stations by dry and wet bulb thermometers mounted in standard instrument screens. These measurements enable moisture content to be expressed in a number of ways, two of which are vapour pressure and relative humidity.

Vapour pressure. Vapour pressure is the pressure exerted by the water vapour in the air and, as such is a measure of the actual amount of water vapour. The amount of water vapour does not normally vary greatly during the day, although afternoon sea breezes at coastal stations may bring in moisture to increase the vapour pressure by amounts up to 5 millibars. The 9 a.m. figure may be taken as an approximation to the mean value for the day. The table on page 41, contains average 9 a.m. vapour pressure figures for selected stations. The average annual figures range from 8.2 millibars at Alice Springs to 25.9 millibars at Darwin and 27.6 millibars at Thursday Island. At the high level station Kiandra (1,400 metres) the average annual figure is 7.3 millibars. Excluding values at Kiandra, monthly averages range from 6.0 millibars at Alice Springs in August to 31.1 millibars at Darwin in January and at both Darwin and Broome in February.

Vapour pressure in association with air temperature has been used as a measure of climatic discomfort as it affects human beings. Comfortable conditions are generally accepted as being within the vapour pressure range 7–17 millibars, with air temperatures in the range 15–30°C. Above these limits heat discomfort increases and below the limits cold discomfort increases. The wet bulb temperature may also be used as a simple measure of heat discomfort since discomfort increases as the wet bulb temperature rises above 20°C. Climatic discomfort is treated later in this chapter.

Relative humidity. Relative humidity at a given temperature is the ratio (expressed as a percentage) of actual vapour pressure to the saturated vapour pressure at that temperature. The relative humidity at 9 a.m. may be taken as an approximation of the mean relative humidity for the day (24 hours). As a measure of human discomfort this parameter is of limited value because it must be related to the temperature at the time.

The table on page 41 contains average relative humidity (per cent) at 9 a.m. for selected stations. Average annual figures range from 30 per cent at Mundiwindi to 80 per cent at Thursday Island. Monthly averages range from 17 per cent at Mundiwindi in October to 89 per cent at Katanning in June, July and August and at Kiandra in June. In northern Australia the highest relative humidity occurs in the summer rainy season about February and the lowest in the winter dry season about July. Darwin averages 81 per cent in January and February and 62 per cent in July. In most of southern Australia the highest relative humidity is experienced in the winter rainy season about June or July and the lowest in the warmer months. Perth averages 76 per cent in July and 51 per cent in December, January and February. Over the interior, relative humidity is consistently low, although higher averages occur in winter months when temperatures are low. At Alice Springs, October has the lowest average (24 per cent) and June the highest (62 per cent).

The pattern of variation of relative humidity differs from that of vapour pressure, particularly in the south. This is due to the difference in variation of the two parameters with temperature. If the amount of moisture in the air remains constant, vapour pressure decreases slightly with falling temperature, whereas relative humidity increases. Perth, for example, has an average 9 a.m. vapour pressure of 14.8 millibars in January and 10.7 millibars in August; corresponding relative humidity figures are 51 and 71 per cent.

AVERAGE VAPOUR PRESSURE AT 9 A.M.

(mb)

NOTE. The average monthly and annual figures in this and the next table are derived from the average monthly and annual dry and wet bulb temperatures respectively, using psychrometric formulae. Due to the nature of these formulae annual figures so derived may not equal averages of monthly figures.

Station	*Period of record*	*Jan.*	*Feb.*	*Mar.*	*Apr.*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Year*
Adelaide	1868–1971	11.9	12.3	11.7	11.3	10.8	9.9	9.4	9.7	9.9	10.1	10.5	11.1	10.7
Alice Springs	1957–1971	11.9	11.5	10.5	10.1	8.4	7.9	6.5	6.0	6.6	6.8	8.6	9.9	8.2
Armidale	1957–1971	15.1	15.5	14.1	11.7	8.7	7.5	6.3	7.3	8.3	10.1	11.5	13.3	10.2
Brisbane	1887–1950	21.7	22.0	20.9	17.5	14.3	12.1	11.1	11.7	13.8	16.0	18.1	20.1	16.6
Broome	1957–1971	29.4	31.1	29.4	22.4	14.6	14.2	11.8	11.8	15.8	21.7	25.3	28.8	20.8
Canberra	1940–1971	13.1	13.8	12.5	10.3	8.4	7.1	6.6	7.0	8.2	9.7	10.4	11.9	9.9
Carnarvon	1957–1971	21.7	21.9	19.9	16.9	13.8	14.0	11.8	11.6	12.3	13.8	15.9	18.8	15.8
Ceduna	1957–1971	13.8	14.3	14.1	12.0	11.1	9.7	9.4	9.6	10.3	10.3	10.9	12.2	11.1
Charleville	1957–1971	16.7	17.1	15.6	12.5	10.2	9.3	7.8	8.1	8.5	10.5	11.3	14.4	11.3
Cloncurry	1957–1971	19.9	21.2	17.8	13.3	10.4	9.2	7.6	6.9	7.5	9.9	11.8	15.4	12.0
Darwin	1882–1966	31.1	31.1	30.7	27.0	21.8	18.7	17.6	20.6	24.7	27.7	29.3	30.5	25.9
Esperance	1957–1969	16.0	16.7	15.7	14.4	12.7	12.1	11.1	11.1	11.7	12.9	13.9	15.3	13.5
Halls Creek	1957–1971	21.1	21.7	18.5	12.4	10.3	8.2	6.9	6.7	7.5	10.9	13.9	18.0	12.6
Hobart	1894–1970	11.0	11.7	11.0	10.0	8.8	7.9	7.6	7.9	8.3	9.1	9.6	10.6	9.5
Kalgoorlie	1957–1971	12.9	14.0	13.1	11.8	10.3	10.1	8.9	8.8	9.1	9.6	10.5	11.7	10.7
Katanning	1957–1972	13.2	13.9	13.2	12.5	11.0	10.5	9.3	9.7	10.2	9.4	10.6	11.5	11.1
Kiandra	1957–1972	11.1	11.3	10.3	7.6	5.9	5.4	4.7	5.2	5.5	7.3	8.1	10.3	7.3
Marble Bar	1957–1971	20.4	20.8	17.8	12.6	9.5	10.3	7.8	7.6	7.8	9.1	11.0	15.0	11.9
Melbourne	1907–1971	13.1	14.1	13.3	11.7	10.3	9.3	8.9	9.1	9.5	10.5	11.3	12.5	11.1
Mildura	1957–1971	13.6	13.7	13.1	11.7	10.3	9.0	8.7	9.0	9.9	10.4	10.8	11.9	10.8
Mundiwindi	1957–1972	13.1	14.4	11.8	10.6	8.5	8.8	7.2	6.8	6.7	6.4	8.2	10.2	8.9
Perth	1911–1940	14.8	14.7	14.7	13.4	12.4	11.4	10.9	10.7	11.6	11.7	12.7	13.9	12.7
Sydney	1876–1971	18.8	19.2	18.3	15.0	11.9	10.2	9.6	9.5	11.3	13.0	15.0	17.6	13.6
Thursday Island	1957–1971	30.2	30.4	30.3	29.0	28.0	25.8	24.1	24.5	24.7	26.1	28.0	29.6	27.6
Townsville	1957–1971	26.1	27.3	25.4	22.1	18.2	15.3	14.1	15.7	16.7	19.7	22.9	24.6	20.3

AVERAGE RELATIVE HUMIDITY AT 9 A.M.

(per cent)

Station	*Period of record*	*Jan.*	*Feb.*	*Mar.*	*Apr.*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Year*
Adelaide	1868–1971	41	43	47	56	67	75	76	70	60	51	45	40	56
Alice Springs	1957–1971	30	32	35	44	54	62	56	43	33	24	25	27	35
Armidale	1957–1971	63	68	70	73	77	80	74	73	63	56	54	57	66
Brisbane	1887–1971	66	69	71	71	71	72	70	67	63	60	59	61	67
Broome	1957–1971	69	74	69	56	46	52	48	43	46	54	58	64	58
Canberra	1940–1971	58	65	67	73	83	85	83	78	72	66	57	56	69
Carnarvon	1957–1971	62	59	59	59	60	73	68	63	55	53	55	59	61
Ceduna	1957–1971	49	54	60	61	75	77	80	74	63	49	45	48	59
Charleville	1957–1971	47	49	52	52	62	71	65	55	42	38	34	41	48
Cloncurry	1957–1971	48	54	49	42	45	49	43	34	28	27	28	35	40
Darwin	1882–1971	81	81	80	72	65	63	62	66	68	68	70	75	71
Esperance	1957–1969	61	67	66	71	75	82	83	77	71	63	62	62	69
Halls Creek	1957–1971	48	51	44	31	34	33	29	24	20	23	28	38	34
Hobart	1894–1971	58	62	65	70	75	78	78	73	66	62	58	58	67
Kalgoorlie	1957–1971	43	50	52	58	65	75	74	65	55	46	42	42	54
Katanning	1957–1972	58	65	68	78	78	89	89	89	83	54	51	48	69
Kiandra	1957–1972	63	68	72	75	85	89	88	87	71	64	58	64	71
Marble Bar	1957–1971	40	44	38	31	32	43	36	30	24	21	22	28	32
Melbourne	1907–1971	60	63	66	72	79	83	81	75	68	63	60	60	69
Mildura	1957–1971	49	52	59	69	82	87	88	81	69	56	48	48	63
Mundiwindi	1957–1972	28	35	30	35	40	50	46	37	28	17	19	21	30
Perth	1911–1940	51	51	57	61	70	75	76	71	66	60	52	51	62
Sydney	1876–1971	68	70	74	74	75	76	74	68	66	62	62	64	69
Thursday Island	1957–1971	84	86	85	81	82	80	79	79	75	73	73	77	80
Townsville	1957–1971	69	75	73	68	66	66	64	63	56	58	62	64	65

Sunshine, cloud and fog

Sunshine. Sunshine as treated here refers to bright or direct sunshine. Australia receives relatively large amounts of sunshine although seasonal cloud formations have a notable effect on its spatial and temporal distribution. Cloud cover reduces both incoming and outgoing radiation and thus affects sunshine, air temperature and other climatic elements at the earth's surface. Sunshine amounts at Australian capitals are included in the climatic tables, pages 54–61.

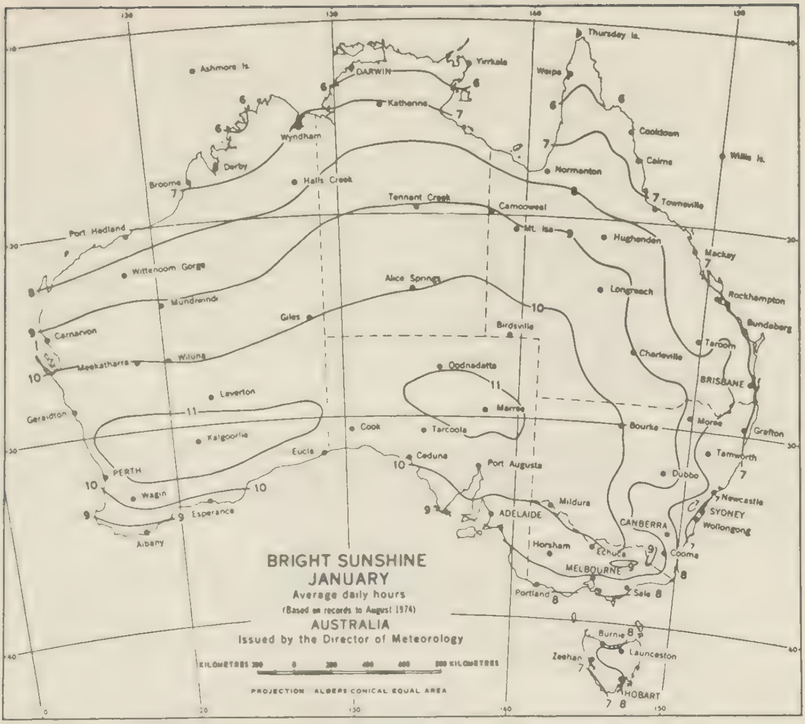
Average daily sunshine (hours) in January and July based on all available data to August 1974 is shown in plates 15 and 16, page 43. In areas where there is a sparsity of data, estimates of sunshine derived from cloud data were used. Most of the continent receives more than 3,000 hours of sunshine a year, or nearly 70 per cent of the total possible. In central Australia and the mid-west coast of Western Australia totals slightly in excess of 3,500 hours occur. Totals of less than 1,750 hours occur on the west coast and highlands of Tasmania; this amount is only 40 per cent of the total possible per year (about 4,380 hours).

In southern Australia generally the duration of sunshine is greatest about December when the sun is at its highest elevation and lowest in June when the sun is lowest. In northern Australia sunshine is generally greatest about August-October prior to the wet season and least about January-March during the wet season. The table below gives the 20, 50 and 80 percentiles of daily bright sunshine for the months of June and December at selected stations. These values give an indication of the variability of daily sunshine hours. Perth, for example, has a high variability of daily sunshine hours in the wet month of June (160 per cent) and a low variability in the dry month of December (30 per cent). Darwin has a low variability in the dry season month of June (15 per cent) and a high variability in the wet season month of December (85 per cent).

BRIGHT SUNSHINE, VARIABILITY OF DAILY HOURS, JUNE AND DECEMBER
(20, 50 and 80 percentile values)

		June			*December*		
		Percentile			*Percentile*		
Station	*Period of record*	*20*	*50*	*80*	*20*	*50*	*80*
Adelaide . . .	1955–71	1.0	3.5	7.5	4.0	9.0	12.5
Alice Springs . .	1954–71	5.5	9.5	10.0	6.5	11.0	12.5
Brisbane . . .	1951–71	2.5	8.0	9.5	4.0	8.5	11.5
Canberra . . .	1957–71	2.0	5.0	7.0	4.0	9.5	12.0
Darwin . . .	1951–71	9.0	10.0	10.5	3.5	7.5	10.0
Hobart	1955–71	0.5	3.0	6.0	2.5	7.0	10.5
Melbourne . . .	1955–70	0.5	2.5	6.0	3.0	7.5	11.5
Perth	1945–71	1.0	4.0	7.5	8.5	11.0	12.0
Sydney	1955–71	0.5	6.0	8.0	1.5	7.5	11.0
Townsville . . .	1957–71	4.5	9.0	10.0	5.0	9.5	11.0

Cloud. Seasonal changes in cloudiness vary with the distribution of rainfall. In the southern parts of the continent, particularly in the coastal and low lying areas, the winter months are generally more cloudy than the summer months. This is due to the formation of extensive areas of stratiform cloud and fog during the colder months, when the structure of the lower layers of the atmosphere favours the physical processes resulting in this type of cloud. Particularly strong seasonal variability of cloud cover exists in northern Australia where skies are clouded during the summer wet season and mainly cloudless during the winter dry season. Cloud coverage is greater near coasts and on the windward slopes of the eastern uplands of Australia and less over the dry interior.


BRIGHT SUNSHINE
JANUARY
Average daily hours
(Based on records to August 1974)
AUSTRALIA
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Thursday Is.
Ashmore Is.
DARWIN
Yirrkala
Weipa
Katherine
Wyndham
Derby
Cooktown
Cairns
Willis Is.
Broome
Halls Creek
Normanton
Tennant Creek
Camooweal
Townsville
Port Hedland
Mt. Isa
Hughenden
Mackay
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Birdsville
Bundaberg
Carnarvon
Taroom
Charleville
Meekatharra
Wiluna
Oodnadatta
BRISBANE
Laverton
Marree
Geraldton
Moree
Kalgoorlie
Cook
Tarcoola
Bourke
Grafton
Eucla
Ceduna
Tamworth
PERTH
Port Augusta
Dubbo
Wagin
Mildura
Newcastle
Esperance
ADELAIDE
SYDNEY
Albany
CANBERRA
Wollongong
Horsham
Echuca
Cooma
MELBOURNE
Portland
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Burnie
Launceston
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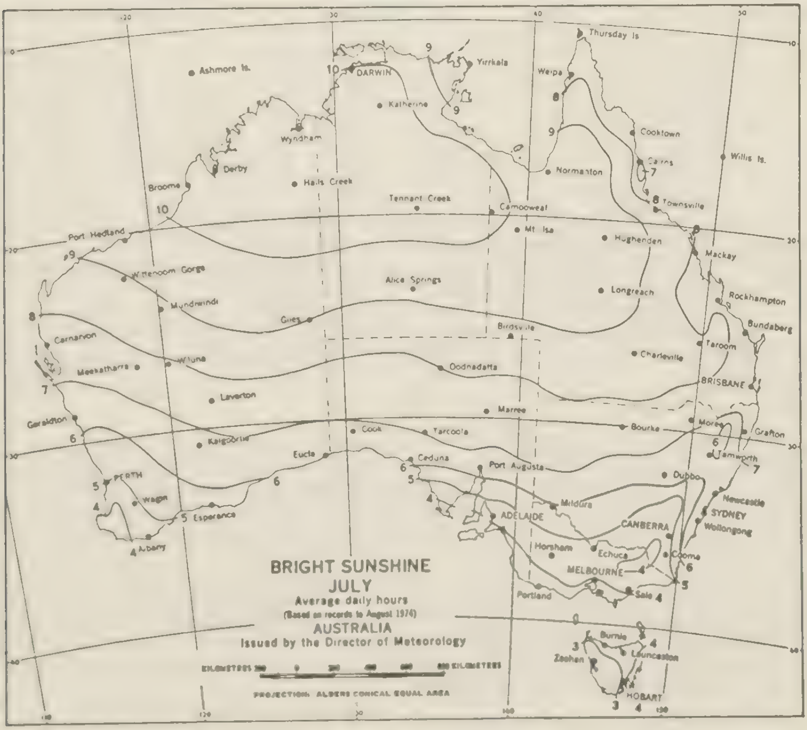
BRIGHT SUNSHINE
JULY
Average daily hours
(Based on records to August 1974)
AUSTRALIA
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is.
DARWIN
Yirrkala
Weipa
Katherine
Wyndham
Cooktown
Derby
Cairns
Willis Is.
Broome
Halls Creek
Normanton
Tennant Creek
Camooweal
Townsville
Port Hedland
Mt. Isa
Hughenden
Mackay
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Birdsville
Bundaberg
Carnarvon
Taroom
Charleville
Meekatharra
Wiluna
Oodnadatta
BRISBANE
Laverton
Marree
Geraldton
Moree
Kalgoorlie
Cook
Tarcoola
Bourke
Grafton
Eucla
Ceduna
Tamworth
PERTH
Port Augusta
Dubbo
Wagin
Mildura
Newcastle
Esperance
ADELAIDE
SYDNEY
Albany
CANBERRA
Wollongong
Horsham
Echuca
Cooma
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Burnie
Launceston
Zeehan
HOBART
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PLATES 15 and 16

The average monthly cloud amounts at Australian capitals are included in the climatic tables on pages 54 61. Darwin has the least average daily coverage of 3.2 eighths and Hobart the highest daily average of 5.0 eighths. The highest daily average for any month occurs at Darwin (5.9 eighths for January) and the lowest average daily is also at Darwin (1.1 eighths for August).

Fog. The formation of fog depends on the occurrence of favourable meteorological elements — mainly temperature, humidity, wind and cloud cover. The nature of the local terrain is important for the development of fog and there is a tendency for this phenomenon to persist in valleys and hollows. The incidence of fog may vary significantly over distances as short as one kilometre.

Fog in Australia tends to be greater in the south than the north, although parts of the east coastal areas are relatively fog prone even in the tropics. Incidence is much greater in the colder months, particularly in the eastern uplands. Fog may persist during the day but rarely until the afternoon over the interior. The highest fog incidence at a capital city is at Canberra which has an average of 46 days per year on which fog occurs, 28 of which are in the period May to August. Brisbane averages 22 days of fog per year, 17 of which occur between April and September. Darwin averages only 3 days per year, June to September.

Global radiation

Global (short wave) radiation includes that radiation energy reaching the ground directly from the sun and that received indirectly from the sky, scattered downwards by clouds, dust particles, etc.

Plates 17 and 18, page 45, show the average global radiation for the months of January and July. The table below shows the variability of daily global radiation for June and December (1968-72) at selected stations.

GLOBAL RADIATION: VARIABILITY OF DAILY AMOUNTS FOR JUNE AND DECEMBER

(mWh.cm^{-2})

(20, 50 and 80 percentile values in milliwatt hours per square centimetre (1964-68))

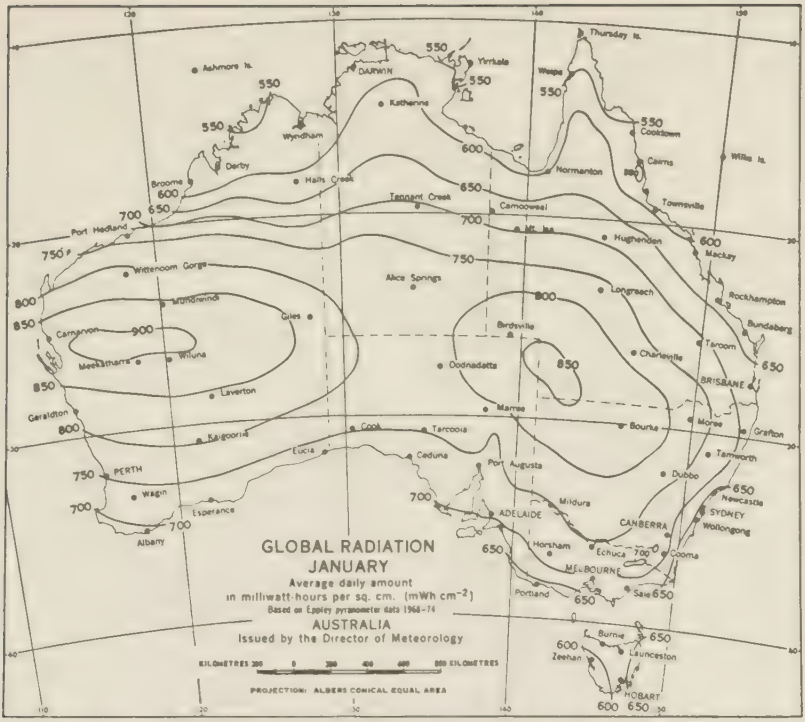
	June			*December*		
	Percentiles			*Percentiles*		
Station	*20*	*50*	*80*	*20*	*50*	*80*
Alice Springs	360	450	480	580	760	810
Darwin	520	570	590	440	570	620
Melbourne	130	190	240	470	640	780
Perth	180	260	330	770	870	910
Townsville	360	490	510	550	710	760
Williamtown	210	270	330	490	650	780

A high correlation exists between daily global radiation (plates 17 and 18, page 45) and daily hours of sunshine (plates 15 and 16, page 43). On the north-west coast around Port Hedland, where average daily global radiation is the highest for Australia (640 milliwatt hours), average daily sunshine is also highest, being approximately 10 hours. Sunshine is more dependent on variations in cloud coverage than is global radiation, since the latter includes diffuse radiation from the sky as well as direct radiation from the sun. An example is Darwin where in the dry month of July sunshine approaches twice that of the wet (cloudy) month of January but global radiation figures for the two months are comparable.

Evaporation

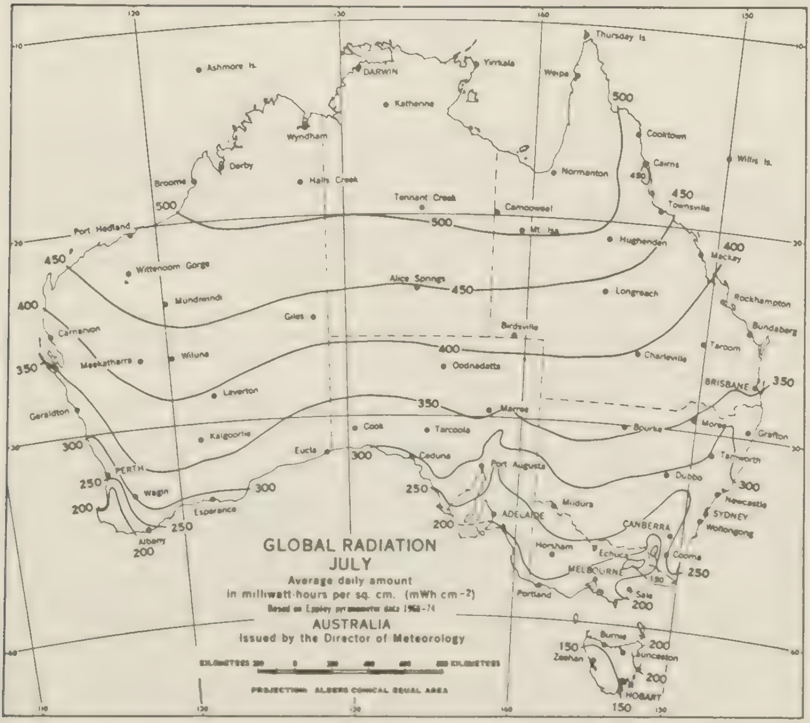
Evaporation is determined by measuring the amount of water evaporated from a free water surface exposed in a pan. Evaporation from a free water surface depends on a number of climatic elements, mainly temperature, humidity and wind. Evaporation data are useful in water conservation studies and in estimating potential evapotranspiration for irrigation and plant growth studies. In Australia, where surface water storage is vital over large areas, evaporation is a highly significant element.

Average annual Class A pan evaporation is mapped in plate 19, page 46, which shows a variation from 900 millimetres in southwest Tasmania to 4,500 millimetres in the dry interior of Western Australia with about 75 per cent of the continent exceeding 2,500 millimetres. In about 75 per cent of the continent, comprising most inland areas, rainfall does not exceed evaporation loss from a free water surface in any month of the year. In the central and north-west parts of the continent the annual evaporation exceeds ten times the rainfall.



GLOBAL RADIATION
JANUARY
Average daily amount
in milliwatt-hours per sq. cm. (mWh cm^{-2})
Based on Eppley pyranometer data 1968–74
AUSTRALIA
Issued by the Director of Meteorology

KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
Thursday Is.
Ashmore Is.
DARWIN
Yirrkala
Weipa
Katherine
Wyndham
Derby
Broome
Halls Creek
Tennant Creek
Camooweal
Normanton
Cooktown
Cairns
Willis Is.
Townsville
Mt Isa
Hughenden
Mackay
Port Hedland
Wittenoom Gorge
Mundiwindi
Alice Springs
Longreach
Rockhampton
Bundaberg
Giles
Carnarvon
Birdsville
Taroom
Meekatharra
Wiluna
Oodnadatta
Charleville
BRISBANE
Laverton
Marree
Geraldton
Kalgoorlie
Cook
Tarcoola
Bourke
Moree
Grafton
Eucla
Ceduna
Tamworth
Port Augusta
Dubbo
PERTH
Wagin
Esperance
Albany
Mildura
Newcastle
SYDNEY
Wollongong
ADELAIDE
CANBERRA
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Burnie
Zeehan
Launceston
HOBART
550
600
650
700
750
800
850
900



GLOBAL RADIATION
JULY
Average daily amount
in milliwatt-hours per sq. cm. (mWh cm^{-2})
Based on Eppley pyranometer data 1968–74
AUSTRALIA
Issued by the Director of Meteorology

KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
Thursday Is.
Ashmore Is.
DARWIN
Yirrkala
Weipa
Katherine
Wyndham
Derby
Broome
Halls Creek
Tennant Creek
Camooweal
Normanton
Cooktown
Cairns
Willis Is.
Townsville
Mt Isa
Hughenden
Mackay
Port Hedland
Wittenoom Gorge
Mundiwindi
Alice Springs
Longreach
Rockhampton
Bundaberg
Giles
Carnarvon
Birdsville
Taroom
Meekatharra
Wiluna
Oodnadatta
Charleville
BRISBANE
Laverton
Marree
Geraldton
Kalgoorlie
Cook
Tarcoola
Bourke
Moree
Grafton
Eucla
Ceduna
Tamworth
Port Augusta
Dubbo
PERTH
Wagin
Esperance
Albany
Mildura
Newcastle
SYDNEY
Wollongong
ADELAIDE
CANBERRA
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Burnie
Zeehan
Launceston
HOBART
150
200
250
300
350
400
450
500

PLATES 17 and 18

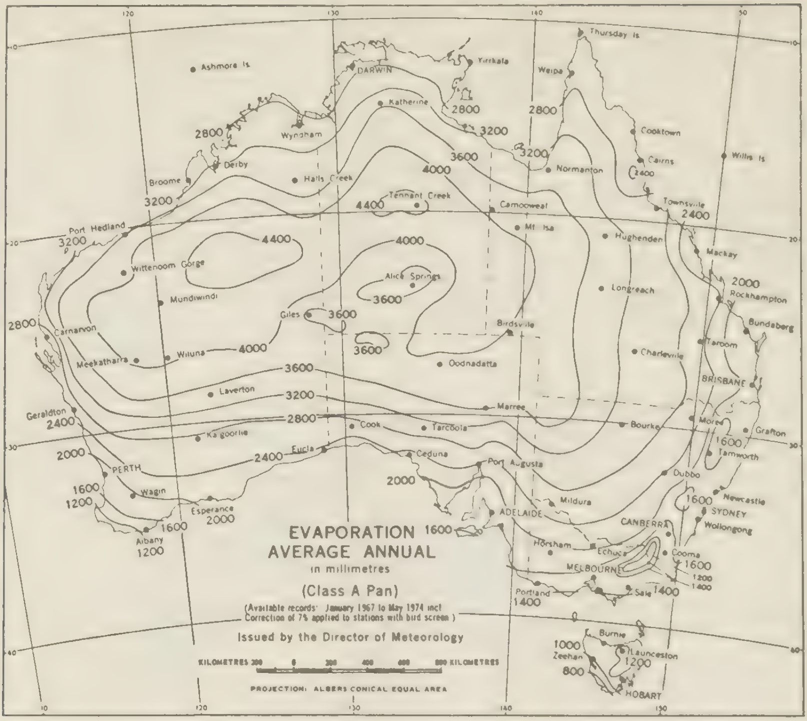

EVAPORATION
AVERAGE ANNUAL
in millimetres
(Class A Pan)
(Available records: January 1967 to May 1974 incl
Correction of 7% applied to stations with bird screen)
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
120
130
140
150
10
20
30
40
Thursday Is
Ashmore Is
DARWIN
Yirrkala
Weipa
Katherine
2800
3200
Wyndham
Cooktown
Derby
3600
4000
Normanton
Cairns
Willis Is
Broome
Halls Creek
Tennant Creek
4400
Camooweal
Townsville
2400
Port Hedland
Mt Isa
Hughenden
Mackay
Wittenoom Gorge
Alice Springs
Longreach
2000
Rockhampton
Mundiwindi
Giles
Birdsville
Bundaberg
Carnarvon
Taroom
Meekatharra
Wiluna
Oodnadatta
Charleville
BRISBANE
Laverton
Marree
Geraldton
Moree
Grafton
Cook
Tarcoola
Bourke
Kalgoorlie
Eucla
Ceduna
Tamworth
1600
PERTH
Port Augusta
Dubbo
Wagin
Mildura
Newcastle
1200
Esperance
ADELAIDE
SYDNEY
Wollongong
Albany
CANBERRA
Horsham
Echuca
Cooma
MELBOURNE
Sale
1400
Portland
Burnie
1000
Zeehan
Launceston
800
HOBART

PLATE 19

Winds

The mid-latitude anticyclones are the chief determinants of Australia's two main prevailing wind streams. In relation to the west-east axes of the anticyclones these streams are easterly to the north and westerly to the south. The cycles of development, motion and decay of low pressure systems to the north and south of the anticyclones result in diversity of wind flow patterns. Wind variations are greatest around the coasts where diurnal land and sea breeze effects are important.

Wind roses for the months of January and July at 9 a.m. and 3 p.m. at selected stations are shown in Plates 20-23 inclusive, pages 47–48. The wind roses show the percentage frequency of direction (eight points of compass) and speed ranges of winds.

Orography affects the prevailing wind pattern in various ways such as the channelling of winds through valleys, deflection by mountains and cold air drainage from highland areas. An example of this channelling is the high frequency of north-west winds at Hobart caused by the north-west south-east orientation of the Derwent River Valley.

Average wind speeds and prevailing directions at Australian capitals are included in the climatic tables on pages 54–61. Perth is the windiest capital with an average wind speed of 15.6 kilometres per hour; Canberra is the least windy with an average speed of 5.8 kilometres per hour.

The highest wind speeds and wind gusts recorded in Australia have been associated with tropical cyclones. The highest recorded gust was 246 kilometres per hour during a cyclone at Onslow, Western Australia in 1975 and gusts reaching 200 kilometres per hour have been recorded on several occasions in northern Australia with cyclone visitations. The highest gusts recorded at Australian capitals were 217 kilometres per hour at Darwin and 156 kilometres per hour at Perth.

Estimates of the extreme wind gust expected in a given return period* have been derived for places throughout Australia (Whittingham, 1964). On this basis, for example, Darwin would have an extreme gust for a return period of 10 years of 140 kilometres per hour, Melbourne 135 and Perth 130.

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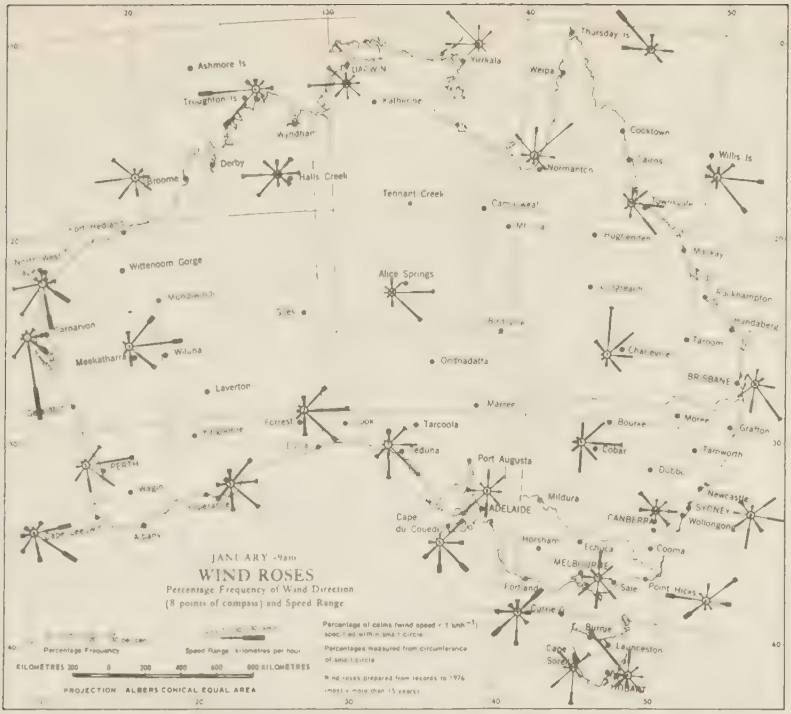
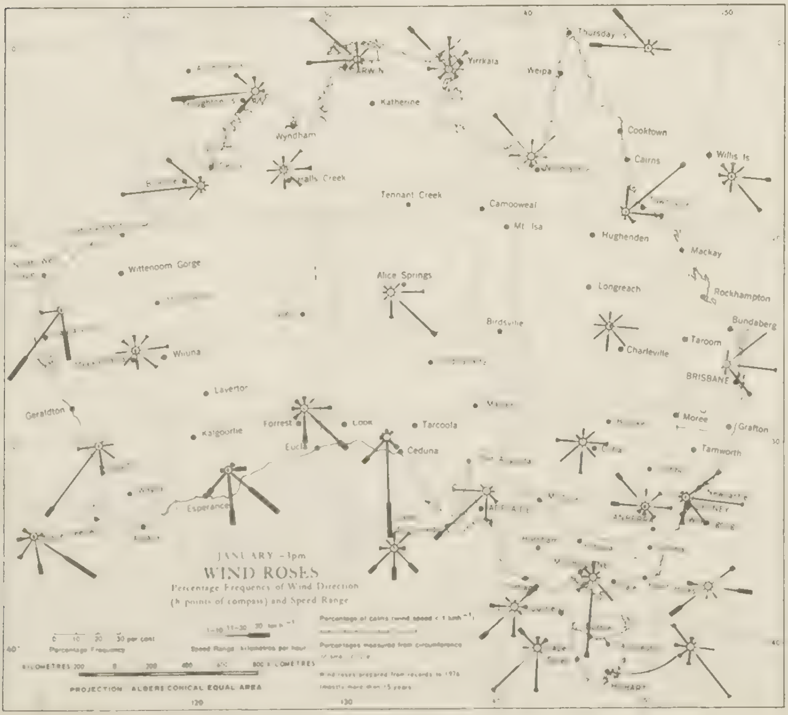
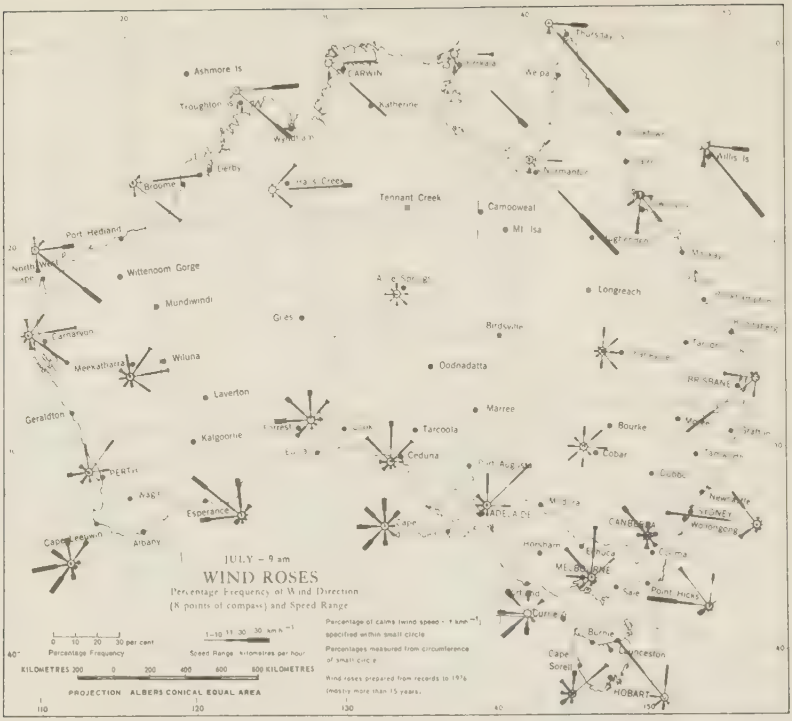
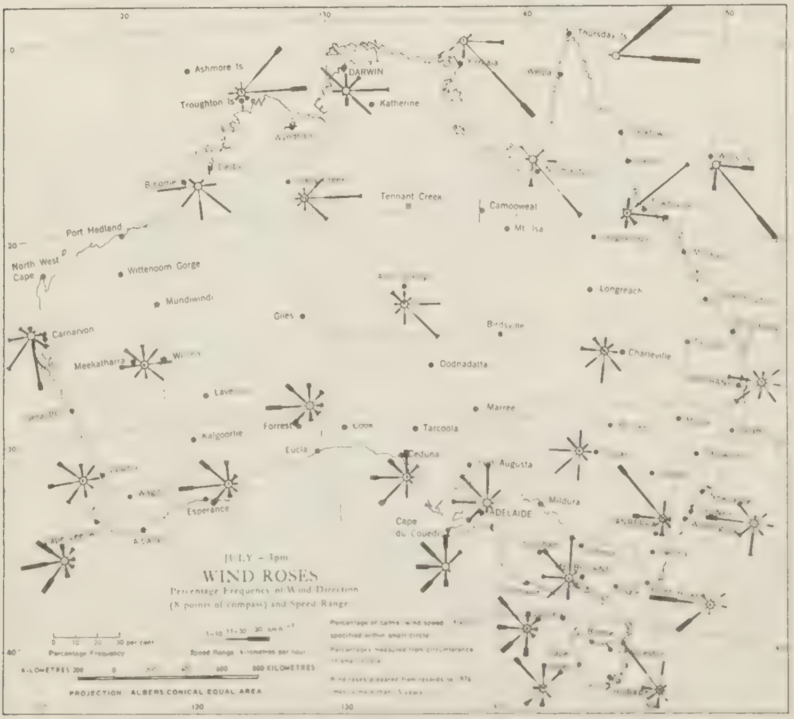
*Return period is the average period between successive occurrences equal to, or greater than, a given speed. For example the extreme wind gust for a return period of 10 years can be expected to occur once in 10 years on the average.


JANUARY -9am
WIND ROSES
Percentage Frequency of Wind Direction
(8 points of compass) and Speed Range
Percentage Frequency
Speed Range kilometres per hour
Percentage of calms (wind speed < 1 kmh⁻¹) specified with in small circle
Percentages measured from circumference of small circle
Wind roses prepared from records to 1976 (mostly more than 15 years)
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Ashmore Is
Troughton Is
Wyndham
Katherine
Yirrkala
Thursday Is
Weipa
Cooktown
Cairns
Willis Is
Normanton
Derby
Broome
Halls Creek
Tennant Creek
Port Hedland
Wittenoom Gorge
Alice Springs
Carnarvon
Meekatharra
Wiluna
Laverton
Oodnadatta
Marree
Forrest
Tarcoola
Ceduna
Bourke
Cobar
Moree
Grafton
Tamworth
Dubbo
Perth
Wagin
Esperance
Albany
Cape Leeuwin
Port Augusta
Mildura
ADELAIDE
Cape du Couedic
Newcastle
SYDNEY
Wollongong
CANBERRA
Horsham
Echuca
Cooma
MELBOURNE
Sale
Point Hicks
Cape Otway
Burnie
Launceston
Cape Sorell
HOBART
Charleville
Taroom
Bundaberg
Rockhampton
Mackay
Hughenden
BRISBANE


JANUARY -3pm
WIND ROSES
Percentage Frequency of Wind Direction
(8 points of compass) and Speed Range
0 10 20 30 per cent
Percentage Frequency
1-10 11-30 30 km h⁻¹
Speed Range kilometres per hour
Percentage of calms (wind speed < 1 kmh⁻¹)
Percentages measured from circumference of small circle
Wind roses prepared from records to 1976 (mostly more than 15 years)
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Thursday Is
Yirrkala
Weipa
Katherine
Wyndham
Cooktown
Cairns
Willis Is
Halls Creek
Tennant Creek
Camooweal
Mt Isa
Hughenden
Mackay
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Birdsville
Bundaberg
Charleville
Taroom
Wiluna
BRISBANE
Laverton
Geraldton
Forrest
Cook
Tarcoola
Moree
Grafton
Kalgoorlie
Eucla
Ceduna
Tamworth
Esperance
HOBART

PLATES 20 and 21


JULY – 9 am
WIND ROSES
Percentage Frequency of Wind Direction
(8 points of compass) and Speed Range
Percentage of calms (wind speed < 1 km h⁻¹) specified within small circle
Percentages measured from circumference of small circle
Wind roses prepared from records to 1976 (mostly more than 15 years)
0 10 20 30 per cent
Percentage Frequency
1–10 11–30 30 km h⁻¹
Speed Range kilometres per hour
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
110
120
130
140
150
20
30
40
Ashmore Is
Troughton Is
Wyndham
DARWIN
Katherine
Thursday Is
Weipa
Willis Is
Normanton
Derby
Broome
Halls Creek
Tennant Creek
Camooweal
Mt Isa
Port Hedland
North West Cape
Wittenoom Gorge
Mundiwindi
Alice Springs
Longreach
Giles
Carnarvon
Meekatharra
Wiluna
Birdsville
Oodnadatta
BRISBANE
Laverton
Marree
Geraldton
Forrest
Tarcoola
Bourke
Kalgoorlie
Ceduna
Cobar
Grafton
PERTH
Port Augusta
Dubbo
Esperance
ADELAIDE
Mildura
Newcastle
SYDNEY
Wollongong
CANBERRA
Cape Leeuwin
Albany
Horsham
Echuca
Cooma
MELBOURNE
Sale
Point Hicks
Portland
Currie
Burnie
Launceston
Cape Sorell
HOBART


JULY – 3pm
WIND ROSES
Percentage Frequency of Wind Direction
(8 points of compass) and Speed Range
0 10 20 30 per cent
Percentage Frequency
1–10 11–30 30 km h⁻¹
Speed Range kilometres per hour
KILOMETRES 200 0 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
120
130
20
30
40
0
Ashmore Is
Troughton Is
DARWIN
Katherine
Thursday Is
Weipa
Tennant Creek
Camooweal
Mt Isa
Port Hedland
North West Cape
Wittenoom Gorge
Mundiwindi
Longreach
Giles
Birdsville
Carnarvon
Charleville
Meekatharra
Oodnadatta
Marree
Forrest
Cook
Tarcoola
Kalgoorlie
Eucla
Ceduna
Port Augusta
Esperance
Mildura
ADELAIDE
Cape du Couedic

PLATES 22 and 23

Floods

Widespread flood rainfall may occur anywhere in Australia but it has a higher incidence in the north and in the eastern coastal areas. It is most economically damaging along the shorter streams flowing from the eastern uplands eastward to the seaboard of Queensland and New South Wales. These flood rains are notably destructive in the more densely populated coastal river valleys of New South Wales—the Tweed, Richmond, Clarence, Macleay, Hunter and Nepean-Hawkesbury—all of which experience relatively frequent flooding. Although chiefly summer rains, they may occur in any season.

The great Fitzroy and Burdekin river basins of Queensland receive flood rains during the summer wet season. Much of the run-off due to heavy rain in north Queensland west of the eastern uplands flows southward through the normally dry channels of the network of rivers draining the interior lowlands into Lake Eyre. This widespread rain may cause floods over an extensive area, but it soon seeps away or evaporates, occasionally reaching the lake in quantity. The Condamine and other northern tributaries of the Darling also carry large volumes of water from flood rains south through western New South Wales to the Murray and flooding occurs along their courses at times.

Flood rains occur at irregular intervals in the Murray-Murrumbidgee system of New South Wales and Victoria, the coastal streams of southern Victoria and the north coast streams of Tasmania.

Droughts

Drought, in general terms, refers to an acute water shortage. This is normally due to rainfall deficiency but with other parameters contributing to the actual water availability. The best single measure of water availability in Australia is rainfall, although parameters such as evaporation and soil moisture are significant, or even dominant, in some situations.

Droughts have severe economic effects in Australia and during the years 1864–1973 inclusive there have been at least eight major droughts affecting the greater part of Australia and at least seven other droughts of lesser severity affecting extensive areas (Foley 1957 (ii)). The droughts of 1895–1903 and 1958–68 were probably the most disastrous in their effects on primary industry.

Gibbs and Maher (1967), having defined a drought year at a certain station as one with the year's rainfall in the first decile range, concluded that the occurrence of areas in the first decile range on annual decile maps for the period 1885–1965 corresponded rather well with drought areas discussed by Foley (1957).

One method of assessing the incidence of rainfall deficiency is the analysis of the distribution of annual rainfalls less than the median (Gaffney 1975). The range between the 50 percentile (median) and the 10 percentile gives a measure of the variation in magnitude of annual rainfalls less than the median. The ratio of this range to the 30 percentile value may be used as an index of rainfall deficiency incidence or drought incidence, i.e.:

$$\text{Index of drought incidence} = \left\{\frac{50 - 10}{30}\right\} \text{percentile}$$

For example, the indexes for Onslow (north-west coast of Western Australia) and similarly, for Cape Otway (south coast of Victoria) are derived thus:

$$\text{Index for Onslow} = \left\{\frac{222 - 64}{145}\right\} \text{mm} = 1.09$$

$$\text{Index for Cape Otway} = \left\{\frac{865 - 716}{801}\right\} \text{mm} = 0.19$$

Plate 24, page 50, shows the distribution of the index of drought incidence over Australia. The intrusions of high index values from the interior to the central coast of Queensland and across western New South Wales are noteworthy. The extreme values on the north-west coast of Western Australia are among the highest in Australia (e.g. Onslow 1.09) due to the dependence of the rainfall on random cyclone tracks.

The Bureau of Meteorology commenced the issue of *Drought Reviews* in June 1965. These reviews provide a summary of serious rainfall deficiencies and are issued monthly when serious or severe deficiencies exist in any of the rainfall districts. The deficiency criteria are based on monthly rainfall decile analyses. A review of droughts in Australia to 1968 is included in Year Book No. 54, 1968. Summaries of subsequent drought periods may be obtained from the *Drought Reviews*.

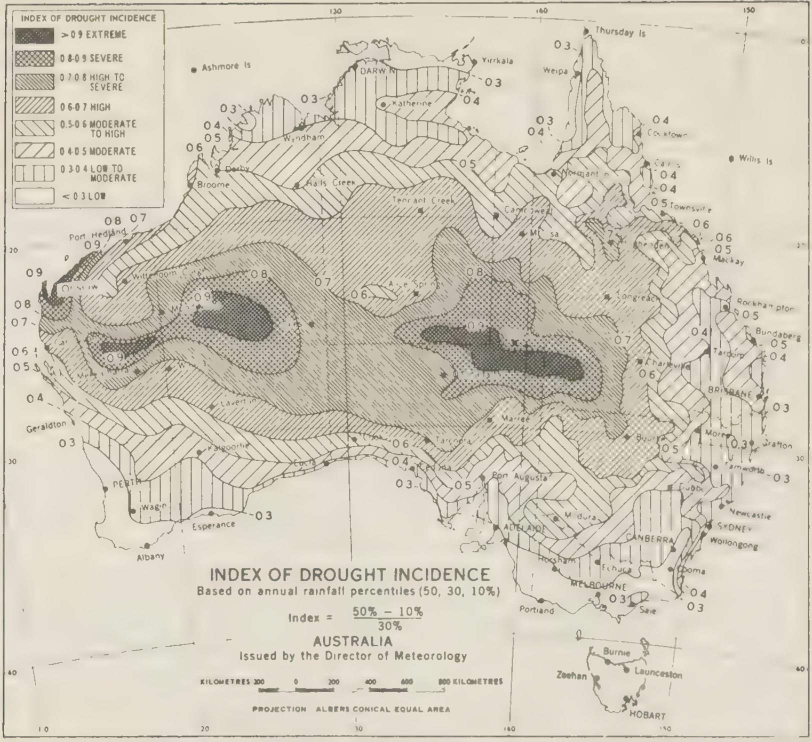

INDEX OF DROUGHT INCIDENCE
>0 9 EXTREME
0 8-0 9 SEVERE
0 7-0 8 HIGH TO SEVERE
0 6-0 7 HIGH
0.5-0 6 MODERATE TO HIGH
0 4-0 5 MODERATE
0 3-0 4 LOW TO MODERATE
< 0 3 LOW
INDEX OF DROUGHT INCIDENCE
Based on annual rainfall percentiles (50, 30, 10%)
Index = 50% − 10% / 30%
AUSTRALIA
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is
Yirrkala
Weipa
DARWIN
Katherine
Wyndham
Derby
Broome
Halls Creek
Tennant Creek
Normanton
Townsville
Willis Is
Port Hedland
Onslow
Wittenoom
Mackay
Rockhampton
Bundaberg
Longreach
Charleville
BRISBANE
Moree
Grafton
Tamworth
Geraldton
Kalgoorlie
PERTH
Wagin
Esperance
Albany
Port Augusta
ADELAIDE
Mildura
Newcastle
SYDNEY
Wollongong
CANBERRA
Cooma
MELBOURNE
Echuca
Horsham
Portland
Sale
Burnie
Launceston
Zeehan
HOBART

PLATE 24

Climatic discomfort

In Australia climatic discomfort is significant in most areas. During the summer half of the year (November–April) prolonged high temperatures and humidity around the northern coasts and high temperatures over the inland cause physical stress. In winter, low temperatures and strong cold winds over the interior and southern areas can be severe for relatively short periods. However, cold stress does not cause prolonged physical hardship in Australia at altitudes lower than 1,000 metres, that is, over more than 99 per cent of the continent.

The climatic variables determining physical discomfort are primarily air temperature, vapour pressure and wind. The complete assessment of physical discomfort also requires analyses of such parameters as thermal conductivity of clothing, vapour pressure at the skin and the metabolic heat rate arising from activity of the human body. The cooling system of the human body depends on evaporation of moisture to keep body temperature from rising to lethal levels as air temperature rises. Defining criteria of discomfort is difficult because personal reactions to the weather differ greatly according to a number of variables including health, age, clothing, occupation and acclimatisation (Ashton 1964). However, climatic strain has been measured experimentally and discomfort indexes based on the average response of subjects under specified conditions have been derived.

Effective Temperature. The effective temperature with respect to any environmental combination of temperature, humidity and wind is defined as the temperature of still, saturated air in which a normally clothed sedentary worker would feel the same level of comfort or discomfort.

Environment studies carried out at the research laboratories of the American Society of Heating, Refrigerating and Air Conditioning Engineers established values of effective temperature corresponding to various combinations of temperature, humidity and air movement. The results were published as a series of research reports commencing in 1923, and have been widely used to measure climatic discomfort (*see* 1960 report of the Society).

Normally clothed sedentary workers are mostly comfortable within a range of effective temperatures between 15°C and 27°C (air movement 5–8 metres per minute). At effective temperatures greater than 27°C, the majority of people feel heat discomfort and when less than 15°C they feel cold discomfort.

The table below contains the annual average frequency of effective temperature at 3 p.m. within specified limits at selected stations. The figures provide comparisons of daily occurrence of afternoon discomfort for the given environmental conditions.

CLIMATIC DISCOMFORT: EFFECTIVE TEMPERATURE

Annual average frequency of days when effective temperature at 3 p.m. is lower than 15°C (cold discomfort), within 15–27°C (comfort), and higher than 27°C (heat discomfort). Indoors, normally clothed sedentary workers, air movement 5–8 metres per minute.

		Average days per year		
Station	*Period of record*	*Less than 15°C*	*15–27°C*	*Greater than 27°C*
Adelaide	1955–72	128	234	3
Albury	1962–71	141	220	4
Alice Springs	1955–67	39	300	26
Brisbane	1951–70	6	356	3
Broome	1941–71	0	225	140
Canberra	1940–72	172	192	1
Carnarvon	1945–72	1	345	19
Ceduna	1955–71	77	279	9
Charleville	1942–72	28	316	21
Cloncurry	1940–72	1	268	96
Darwin	1955–69	0	225	140
Hobart	1944–67	239	126	0
Kalgoorlie	1940–72	66	281	18
Marble Bar	1957–71	0	220	145
Melbourne	1955–71	155	207	3
Mildura	1946–72	95	258	12
Perth	1944–71	57	302	6
Rockhampton	1940–72	2	337	26
Sydney	1955–72	69	295	1
Townsville	1941–69	0	333	32
Woomera	1954–72	73	279	13

Heat discomfort is greatest in the north-west, where Marble Bar averages 145 days of high heat discomfort annually, and least in the south-east, where Hobart has only one day every five years. Cold discomfort is least in the north, where Townsville has one day of cold discomfort in ten years, and greatest in the south-east, where Hobart has 239 days annually when the effective temperature is sufficiently low to cause discomfort. By the suitable choice of clothing discomfort can be decreased significantly on cold days. On cold days also, workers tend to take opportunities to move around, thus increasing metabolic heat rates.

Effective temperature is a useful index but its application is limited because available criteria relate only to indoor workers in sedentary occupations. Furthermore, at lower air temperatures the effective temperature gives excessive weight to humidity.

Relative strain index. The relative strain index derived by Lee and Henschel (1963) has been applied in Australia to measure heat discomfort (Hounam, 1969, Gaffney 1973). The results obtained with Australian data are useful for purposes of comparison but interpretation of the actual results is tentative until empirical environmental studies are carried out in this region. In addition to temperature, humidity and air movement the relative strain index has facilities for incorporation of metabolic heat rate, net radiation and insulation of clothing. It has the advantage of being applicable to manual workers under shelter and expending energy at various metabolic heat rates.

The discomfort map plate 25, page 53, shows the average number of days per year when the relative strain index exceeds 0.3 discomfort level at 3 p.m. assuming standard conditions as defined. Maximum discomfort generally occurs around 3 p.m. on days of high temperature.

A notable feature is the lower frequency of days of discomfort in Queensland coastal areas in comparison with the northern coastal areas of Western Australia. This is due to the onshore winds prevailing on the Queensland coast and the cooling effect of the adjacent eastern uplands. Lower frequencies on the Atherton Plateau in the tropics near Cairns show the advantage of altitude. Relatively low heat discomfort frequencies are evident in upland and coastal areas of south-east Australia. Tasmania is entirely in the zone of least discomfort, experiencing on the average less than one day of heat discomfort per year. In Western Australia most of the Kimberley region in the north lies in the highest discomfort zone with the frequencies decreasing southwards to a strip of lowest discomfort towards the south-west coast. A steep gradient of discomfort frequency on the west coast shows the moderating effect of sea breezes.

The average annual frequency of days when the relative strain index at 3 p.m. exceeds specified discomfort levels is shown in the table below. The Sydney frequencies were derived from observations at the Regional Office of the Bureau of Meteorology, which is representative of eastern coastal suburbs; frequencies are higher in western suburbs. The Melbourne frequencies were derived from observations at the Bureau's Regional Office, which may be taken as fairly representative of inner northern and eastern suburbs; frequencies are lower in bayside suburbs. Similarly, in other capital city areas significant variations occur with distance from the coast.

HEAT DISCOMFORT

Average number of days per year when relative strain index (RSI) at 3 p.m. exceeds 0.3 (discomfort) and 0.4 (high discomfort) under standard conditions (indoors, manual activities, light clothing, air movement 60 metres per minute).

Station	*Period of record*	*Greater than* 0.3 *RSI*	*Greater than* 0.4 *RSI*
Adelaide	1955–72	7	1
Albury	1962–71	8	1
Alice Springs	1955–67	50	4
Brisbane	1951–69	6	<1
Broome	1940–72	155	48
Canberra	1940–72	2	<1
Carnarvon	1945–72	23	3
Ceduna	1955–71	16	3
Charleville	1942–72	42	3
Cloncurry	1940–72	126	28
Darwin	1955–69	165	23
Hobart	1944–67	<1	<1
Kalgoorlie	1939–72	30	5
Marble Bar	1957–71	173	69
Melbourne	1955–71	6	1
Mildura	1946–72	19	3
Perth	1944–72	12	1
Rockhampton	1940–72	33	5
Sydney	1955–72	2	<1
Townsville	1941–69	36	4
Woomera	1954–72	25	3

At inland places, relatively low night temperatures have recuperative effects after hot days. Marble Bar, Western Australia (150 km south-east of Port Hedland) for example, has median night minimum temperatures 5–10° C lower than Darwin, except in December–February. Even in this latter period, although median minima at both stations are around 25 C, Marble Bar has median vapour pressures and relative humidities much lower than Darwin (by 10 millibars and 30 per cent respectively).

Acclimatised people would suffer discomfort less frequently than shown by the relative strain index figures. For example, Australians living in the north evidently experience less discomfort at high air temperatures than those in the south, if humidities are comparable.

Both direction and speed of prevailing winds are significant for the ventilation of buildings. In the tropics, for instance, windward slopes allow optimal air movement enabling more comfortable ventilation to be obtained. Regular sea breezes such as those experienced at Perth reduce discomfort although on some days their full benefit may not be experienced until after 3 p.m.

Climatic data for capital cities

The averages for a number of elements determined from long-period observations at the Australian capitals to 1976 inclusive, are given in the following pages. Extremes generally cover all available data to 1976 inclusive, whereas averages may only refer to present sites.

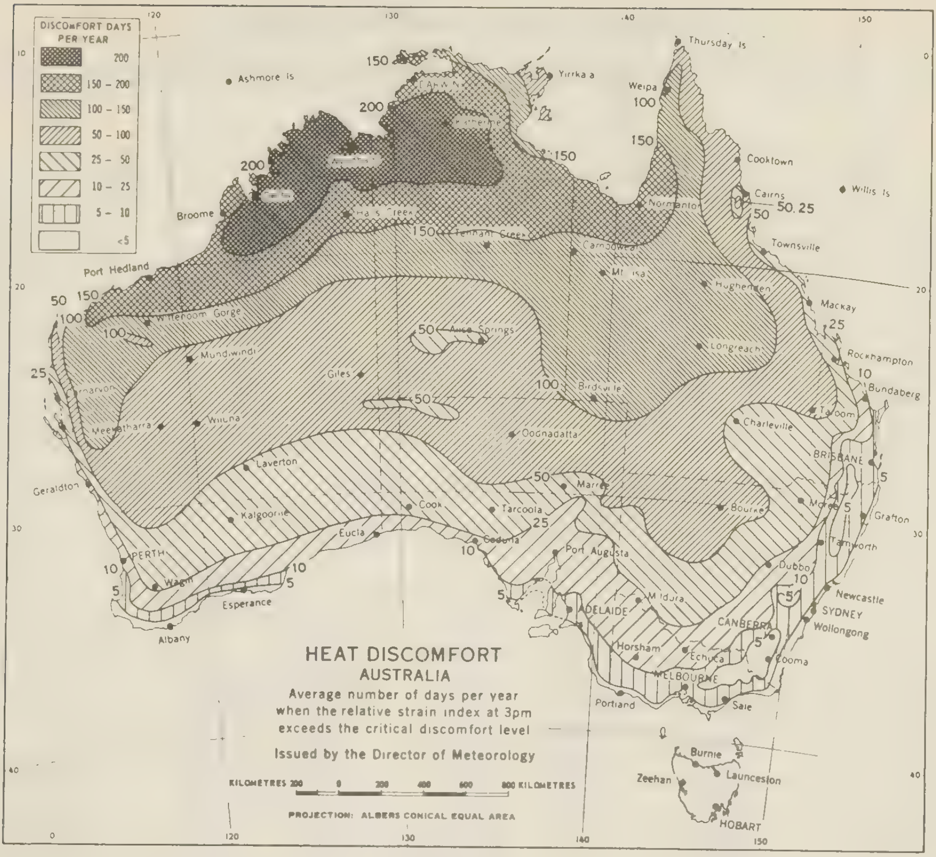

DISCOMFORT DAYS PER YEAR
200
150 - 200
100 - 150
50 - 100
25 - 50
10 - 25
5 - 10
<5
HEAT DISCOMFORT
AUSTRALIA
Average number of days per year when the relative strain index at 3pm exceeds the critical discomfort level
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
Ashmore Is
Thursday Is
Yirrkala
Weipa
Cooktown
Cairns
Willis Is
Townsville
Mackay
Rockhampton
Bundaberg
Taroom
BRISBANE
Grafton
Tamworth
Newcastle
SYDNEY
Wollongong
CANBERRA
Cooma
Sale
MELBOURNE
Portland
Horsham
Echuca
Mildura
ADELAIDE
Port Augusta
Ceduna
Tarcoola
Cook
Eucla
Esperance
Albany
Wagin
PERTH
Geraldton
Kalgoorlie
Laverton
Wiluna
Meekatharra
Carnarvon
Mundiwindi
Wittenoom Gorge
Port Hedland
Broome
Halls Creek
Tennant Creek
Camooweal
Mt Isa
Normanton
Hughenden
Longreach
Alice Springs
Giles
Birdsville
Oodnadatta
Marree
Charleville
Bourke
Moree
Dubbo
Burnie
Launceston
Zeehan
HOBART
Darwin
Katherine
Wyndham
Derby

PLATE 25

CLIMATIC DATA: PERTH, WESTERN AUSTRALIA

(Lat. 31° 57′ S., Long. 115° 52′ E. Height above M.S.L. 15 metres)

BAROMETER, WIND, EVAPORATION, THUNDER, CLOUDS, AND CLEAR DAYS

Month	Mean of 9 a.m. and 3 p.m. atmospheric pressure reduced to mean sea level (mb)	Wind (height of anemometer 22 metres)					Mean amt evaporation (mm)	No. days thunder	Mean daily amt clouds 9 a.m., 3 p.m., 9 p.m. (a)	No. clear days
		Average (km/h)	Highest mean speed in one day (km/h)	Highest gust speed (km/h)	Prevailing direction 9 a.m.	Prevailing direction 3 p.m.				
No. of years of record	91	30(b)	76	61	30(b)	30(b)	9	79	30(b)	30(b)
January	1,012.6	17.5	48.2 26/76*	81	E	SSW	280	0.9	2.3	14
February	1,013.0	17.2	40.8 4/73	87	ENE	SSW	241	0.7	2.5	13
March	1,015.2	16.2	51.9 28/75	113	E	SSW	214	0.7	2.8	12
April	1,017.9	13.7	50.7 25/00	101	ENE	SSW	124	0.9	3.4	9
May	1,017.9	13.5	44.5 8/73	119	NE	WSW	83	1.8	4.3	6
June	1,017.5	13.5	48.6 17/27	129	N	NW	59	1.8	4.7	5
July	1,018.8	14.2	53.9 20/26	137	NNE	W	58	1.5	4.5	5
August	1,018.8	15.1	51.3 15/03	156	N	WNW	75	1.3	4.5	6
September	1,018.4	15.1	45.9 11/05	109	ENE	SSW	105	0.7	3.9	8
October	1,017.0	16.1	43.0 6/16	105	SE	SW	158	0.8	3.8	8
November	1,015.5	17.2	48.2 26/75*	101	E	SW	205	0.8	3.1	9
December	1,013.4	17.7	44.5 24/75	103	E	SSW	241	0.9	2.6	13
Year Totals	..	..	.. ..	..	..	..	**1,843**	**12.8**	..	**108**
Year Averages	**1,016.3**	**15.6**	.. ..	..	**E**	**SSW**	..	..	**3.5**	..
Year Extremes	..	..	**53.9** **20/7/26**	**156**	..	..	..	..	..	..

(a) Scale 0–8. (b) Standard thirty years normal (1911–1940).

TEMPERATURE AND SUNSHINE

Month	Air temperature daily readings (°Celsius)			Extreme air temperature (°Celsius)		Extreme temperature (°Celsius)		Mean daily hours sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest	Highest in sun	Lowest on grass	
No. of years of record	79	79	79	80	80	63(a)	78	78
January	29.5	17.6	23.5	43.7 29/56	9.2 20/25	80.7 22/14	4.2 20/25	10.5
February	29.8	17.8	23.7	44.6 8/33	8.7 1/02	78.7 4/34	4.3 1/13	10.0
March	27.8	16.5	22.2	41.3 14/22	7.7 8/03	75.0 19/18	2.6 (b)	8.9
April	24.4	14.0	19.2	37.6 9/10	4.1 20/14	69.4 8/16	−0.7 26/60	7.2
May	20.6	11.5	16.1	32.4 2/07	1.3 11/14	63.3 4/25	−3.9 31/64	5.9
June	18.1	9.9	14.1	28.1 5/75	1.6 22/55	57.5 9/14	−3.4 27/46	4.8
July	17.3	9.0	13.2	26.3 17/76	1.2 7/16	56.2 13/15	−3.8 30/20	5.3
August	17.9	9.1	13.5	27.8 21/40	1.9 31/08	62.3 29/21	−3.0 18/66	6.2
September	19.4	10.1	14.8	32.7 30/18	2.6 6/56	67.5 29/16	−2.7 (c)	7.2
October	21.2	11.4	16.3	37.3 29/67	4.2 6/68	71.8 19/54	−1.2 16/31	8.3
November	24.5	13.8	19.2	40.3 24/13	5.6 1/04	75.0 30/25	−1.1 6/71	9.7
December	27.3	16.1	21.7	42.3 31/68	8.6 29/57	76.0 11/27	3.3 29/57	10.8
Year Averages	**23.2**	**13.1**	**18.2**	.. ..	.. ..	.. ..	.. ..	**7.9**
Year Extremes	..	..	..	**44.6** **8/2/33**	**1.2** **7/7/16**	**80.7** **22/1/14**	**−3.9** **31/5/64**	..

(a) Records discontinued 1963. b) 8/1903 and 16/1967. (c) 8/1952 and 6/1956.

HUMIDITY, RAINFALL, AND FOG

Month	Vapour pressure mean 9 a.m. (mb)	Rel. hum. (%) at 9 a.m.			Rainfall (millimetres)					Fog Mean No. days
		Mean	Highest mean	Lowest mean	Mean mthly	Mean No. of days of rain	Greatest monthly	Least monthly	Greatest in one day	
No. of years of record	30(a)	30(a)	79	79	100	100	100	100	100	79
January	14.8	51	63	41	8	3	55 1879	Nil (b)	44 27/79*	0.2
February	14.7	51	65	43	11	3	166 1955	Nil (b)	87 17/55	0.3
March	14.7	57	66	46	20	4	145 1934	Nil (b)	77 9/34	0 6
April	13.4	61	75	51	46	8	149 1926	Nil 1920	67 30/04	0.9
May	12.4	70	81	60	125	14	308 1879	14 1964	76 17/42	1.3
June	11.4	75	85	68	185	17	476 1945	55 1877	99 10/20	1.4
July	10.9	76	88	69	175	18	425 1958	61 1876	76 4/91*	1.6
August	10.7	71	83	62	138	18	318 1945	12 1902	74 14/45	1.0
September	11.6	66	75	58	81	14	199 1923	9 1916	47 18/66	0.3
October	11.7	60	75	52	55	11	200 1890	1 1969	50 4/67	0.4
November	12.7	52	66	41	21	6	71 1916	Nil 1891	39 29/56	0.2
December	13.9	51	63	39	14	4	81 1951	Nil (b)	47 3/51	0.2
Year Totals	..	..	..	..	**879**	**120**	.. ..	.. ..	.. ..	**8.1**
Year Averages	**12.7**	**62**	..	..	..	..	.. ..	.. ..	.. ..	..
Year Extremes	..	..	**88**	**39**	..	..	**476** **6/1945**	**Nil (b)**	**99** **10/6/20**	..

(a) Standard thirty years normal (1911–1940). (b) Various years.

Figures such as 26/76, 29/56, etc. indicate, in respect of the month of reference, the day and year of the occurrence. Dates marked with an asterisk(*) relate to nineteenth century.

CLIMATIC DATA: DARWIN, NORTHERN TERRITORY

(Lat. 12° 28′ S., Long. 130° 51′ E. Height above M.S.L. 30 metres)

BAROMETER, WIND, EVAPORATION, THUNDER, CLOUDS, AND CLEAR DAYS

onth	*Mean of 9 a.m. and 3 p.m. atmospheric pressure reduced to mean sea level (mb)*	*Wind (height of anemometer 36 metres)*					*Mean amt evaporation (mm)*	*No. days thunder*	*Mean daily amt clouds 9 a.m., 3 p.m., 9 p.m. (a)*	*No. clear days*
		Average (km/h)	*Highest mean speed in one day (km/h)*	*Highest gust speed (km/h)*	*Prevailing direction*					
					9 a.m.	*3 p.m.*				
o. of years of record	90	20	..	22(*b*)	..	..	8	35	35	35
anuary	1,006.2	9.3	..	106	W	NW	225	12.9	5.9	1
ebruary	1,006.3	10.6	..	101	W	NW	187	10.2	5.8	1
arch	1,007.2	7.5	..	157	W	NW	190	10.6	5.2	3
pril	1,009.3	8.8	..	67	SE	NW	218	4.0	2.9	10
ay	1,010.9	9.6	..	62	SE	E	223	0.5	2.0	16
une	1,012.2	10.1	..	64	SE	E	206	0.0	1.4	19
ly	1,012.8	8.9	..	62	SE	E	229	0.0	1.3	20
ugust	1,012.6	8.6	..	72	SE	NW	238	0.0	1.1	20
eptember	1,011.7	8.6	..	64	ENE	NW	270	1.0	1.8	16
ctober	1,010.5	9.8	..	85	NE	NW	285	5.3	2.7	9
ovember	1,008.7	8.6	..	117	NW	NW	260	11.8	3.9	4
ecember	1,006.9	9.8	..	217	NW	NW	240	14.2	4.9	2
ear Totals	..	..	..	..	..	..	2,773	70.5	..	121
ear Averages	1,009.6	9.2	..	..	SE	NW	..	..	3.2	..
ear Extremes	..	..	..	217	..	..	..	..	..	..

(*a*) Scale 0–8. (*b*) Several incomplete years.

TEMPERATURE AND SUNSHINE

onth	*Air temperature daily readings (°Celsius)*			*Extreme air temperature (°Celsius)*				*Extreme temperature (°Celsius)*			*Mean daily hours sunshine*
	Mean max.	*Mean min.*	*Mean*	*Highest*		*Lowest*		*Highest in sun*		*Lowest on grass*	
o. of years of record	90	90	90	92(*a*)		92(*a*)		26(*b*)		..	21
anuary	32.2	25.0	28.6	37.8	2/82*	20.0	20/92*	75.6	26/42	..	5.9
ebruary	31.9	24.8	28.4	38.3	20/87*	17.2	25/49	73.2	(*c*)	..	5.9
arch	32.4	24.8	28.6	38.9	(*d*)	19.2	31/45	74.3	23/38	..	6.8
pril	33.1	24.2	28.7	40.0	7/83*	16.0	11/43	72.8	1/38	..	8.6
ay	32.3	22.4	27.4	39.1	8/84*	(*e*)14.2	28/67	71.2	5/20	..	9.3
une	30.9	20.4	25.7	39.0	17/37*	12.1	23/63	68.5	2/16	..	9.7
ly	30.4	19.6	25.1	36.7	17/88*	10.4	29/42	68.9	28/17	..	9.8
ugust	31.4	20.8	26.1	37.0	30/71*	13.6	11/63	69.1	28/16	..	10.4
eptember	32.7	23.2	27.9	38.9	20/82*	16.7	9/63	69.5	(*f*)	..	10.0
ctober	33.6	25.0	29.3	40.5	17/92*	19.4	8/66	71.4	30/38	..	9.5
ovember	33.8	25.3	29.6	39.6	9/84*	19.3	4/50	77.0	14/37	..	8.6
ecember	33.2	25.3	29.3	38.9	20/82*	18.3	4/60	76.2	26/23	..	7.1
ear Averages	32.3	23.3	27.9	..	..	..	..	..	..	..	8.5
ear Extremes	..	..	..	40.5 17/10/1892		10.4 29/7/1942		77.0 14/11/37		..	..

(*a*) Years 1882–1941 at Post Office, 1942–1966 at Aerodrome; 1967–1971 at Regional office; sites not strictly comparable. (*b*) Records iscontinued 1942. (*c*) 5 1938 and 23 1938. (*d*) 26 1883 and 27 1883. (*e*) Recorded at Darwin Aerodrome. All other Statistics rom 1967 to 1971 at Regional Office. (*f*) 28/1916 and 3/1921.

HUMIDITY, RAINFALL, AND FOG

onth	*Vapour pressure mean 9 a.m. (mb)*	*Rel. hum. (%) at 9 a.m.*			*Rainfall (millimetres)*								*Fog Mean No. days*
		Mean	*Highest mean*	*Lowest mean*	*Mean mthly*	*Mean No. of days of rain*	*Greatest monthly*		*Least monthly*		*Greatest in one day*		
o. of years of record	85(*a*)	90	57(*b*)	57(*b*)	86(*c*)	74	107(*d*)		107(*d*)		107(*d*)		35
anuary	31.1	81	89	69	391	19	746	1974	68	1906	296	7/97*	0.0
ebruary	31.1	81	88	71	330	18	815	1969	13	1931	279	18/55	0.0
arch	30.7	80	84	69	260	17	1013	1977	21	1911	241	16/77	0.0
pril	27.0	72	80	60	103	8	603	1891	Nil	1950	158	4/59	0.0
ay	21.8	65	76	49	14	1	299	1968	Nil	(*e*)	56	6/22	0.0
une	18.7	63	75	52	3	0	76	1973	Nil	(*e*)	36	0/02	0.4
uly	17.6	62	71	47	1	0	65	1900	Nil	(*e*)	43	12/00	1.1
ugust	20.6	66	73	53	2	0	84	1947	Nil	(*e*)	80	2/47	0.8
eptember	24.7	68	73	54	13	2	108	1942	Nil	(*e*)	71	21/42	0.2
ctober	27.7	68	72	60	50	5	339	1954	Nil	(*e*)	95	28/56	0.0
ovember	29.3	70	75	62	126	11	399	1938	10	1870	120	19/51	0.0
ecember	30.5	75	83	65	243	16	616	1974	25	1934	279	25/74	0.0
ear Totals	..	..	..	..	1,536	97	..	..	..	..	..	..	2.5
ear Averages	25.9	71	..	..	..	..	..	..	..	..	..	..	..
ear Extremes	..	..	89	47	..	..	1013	3/77	Nil	(*f*)	296 7/1/1897		..

(*a*) Records to 1966 at Aerodrome. (*b*) 1882 to 1938 at Post Office. (*c*) 1869 to 1962 at Post Office; 8 years missing. (*d*) Highest or lowest at either Post Office, Aerodrome or Regional Office Sites. (*e*) Various years. (*f*) April to October. Various years.

Figures such as 2 82, 26 42, etc., indicate in respect of the month of reference, the day and year of occurrence. Dates marked with an sterisk(*) relate to nineteenth century.

CLIMATIC DATA: ADELAIDE, SOUTH AUSTRALIA

(Lat. 34° 46′ S., Long. 138° 35′ E. Height above M.S.L. 43 metres)

BAROMETER, WIND, EVAPORATION, THUNDER, CLOUDS, AND CLEAR DAYS

Month	*Mean of 9 a.m. and 3 p.m. atmospheric pressure reduced to mean sea level (mb)*	*Wind (height of anemometer 22 metres)*					*Mean amt evaporation (mm)*	*No. days thunder*	*Mean daily amt clouds 9 a.m., 3 p.m., 9 p.m. (a)*	*No. of clear days*
		Average (km/h)	*Highest mean speed in one day (km/h)*	*Highest gust speed (km/h)*	*Prevailing direction 9 a.m.*	*Prevailing direction 3 p.m.*				
No. of years of record	119	20(*b*)	20(*b*)	59	30(*c*)	30(*c*)	9	104	108	61
January	1,013.2	12.8	32.2 12/70	116	SW	SW	261	1.5	3.0	12.0
February	1,014.3	12.1	28.8 25/67	106	NE	SW	224	1.1	3.0	10 7
March	1,017.2	11.4	30.7 24/64	126	S	SW	180	0.8	3.3	10.7
April	1,019.8	11.4	37.4 10/56	130	NE	SW	126	1.0	4.2	6.8
May	1,020.1	11.3	37.8 19/53	113	NE	NW	80	1.0	4.7	4.5
June	1,019.8	11.6	29.7 16/70	108	NE	N	57	0.9	5.0	3.8
July	1,019.9	11.8	32.9 13/64	148	NE	NW	61	0.8	4.9	3.5
August	1,019.0	12.8	38.2 8/55	121	NE	SW	76	1.1	4.2	4.7
September	1,017.6	13.2	34.9 16/65	111	NNE	SW	113	1.3	4.3	5.5
October	1,016.0	13.6	35.4 1/68	121	NNE	SW	169	1.9	4.2	5.6
November	1,015.1	13.9	36.3 14/68	130	SW	SW	202	2.0	3.9	6.5
December	1,013.3	13.5	31.1 18/69	121	SW	SW	247	1.5	3.4	8.8
Year Totals	..	..	.. ..	..	..	..	**1,795**	**14.9**	..	**83.1**
Year Averages	**1,017.1**	..	.. ..	..	**NE**	**SW**	..	..	**4.0**	..
Year Extremes	..	..	**38.2 8/8/65**	**148**	..	..	..	..	..	..

(*a*) Scale 0–8. (*b*) Records of cup anemometer. (*c*) Standard 30 years normal (1931–1960).

TEMPERATURE AND SUNSHINE

Month	*Air temperature daily readings (°Celsius)*			*Extreme air temperature (°Celsius)*		*Extreme temperature (°Celsius)*		*Mean daily hours sunshine*
	Mean max.	*Mean min.*	*Mean*	*Highest*	*Lowest*	*Highest in sun*	*Lowest on grass*	
No. of years of record	119	119	119	119	119	54(*a*)	115	94
January	29.6	16.4	23.0	47.6 12/39	7.3 21/84*	82.3 18/82*	2.5 14/79*	9.9
February	29.4	16.6	23.0	45.3 12/99*	7.5 23/18	76.9 10/00	2.1 23/26	9.3
March	26.9	15.1	21.0	43.6 9/34	6.6 21/33	78.9 17/83*	0.1 21/33	7.9
April	22.7	12.7	17.7	37.0 5/38	4.2 15/59*	68.3 1/83*	−2.2 14/63	6.0
May	18.7	10.3	14.5	31.9 4/21	2.7 (*b*)	64.6 12/79*	−3.6 19/28	4.8
June	15.8	8.3	12.1	25.6 4/57	0.3 (*c*)	59.3 18/79*	−6.1 24/44	4.2
July	15.0	7.3	11.1	26.6 29/75	0.0 24/08	56.9 26/90*	−5.5 30/29	4.3
August	16.4	7.8	12.1	29.4 31/11	0.2 17/59*	60.0 31/92*	−5.1 11/29	5.3
September	18.9	9.0	14.0	35.1 30/61	0.4 4/58*	71.4 23/82*	−3.9 25/27	6.2
October	22.0	10.9	16.5	39.4 21/22	2.3 20/58*	72.2 30/21	−3.0 22/66	7.2
November	25.2	12.9	19.1	45.3 21/65*	4.9 2/09	74.9 20/78*	−0.6 17/76	8.6
December	27.8	14.9	21.4	45.9 29/31	6.1 (*d*)	79.8 7/99*	−1.0 19/76*	9.4
Year Averages	**22.4**	**11.8**	**17.1**	..	..	..	..	**6.9**
Year Extremes	..	..	..	**47.6** **12/1/39**	**0.0** **24/7/08**	**82.3** **18/1/62**	**−6.1** **24/6/44**	..

(*a*) Discontinued 1934 incomplete 1931–1934. (*b*) *26/1895* and 24/04. (*c*) *27/1876* and 24/44. (*d*) *16/1861* and 4/06.

HUMIDITY, RAINFALL, AND FOG

Month	*Vapour pressure mean 9 a.m. (mb)*	*Rel. hum. (%) at 9 a.m.*			*Rainfall (millimetres)*					*Fog Mean No. days*
		Mean	*Highest mean*	*Lowest mean*	*Mean mthly*	*Mean No. of days of rain*	*Greatest monthly*	*Least monthly*	*Greatest in one day*	
No. of years of record	108	108	108	108	137	137	137	137	137	76
January	11.9	41	59	29	20	4	84 1941	Nil (*a*)	58 2/89*	0.0
February	12.5	44	61	30	21	4	155 1925	Nil (*a*)	141 7/25	0.0
March	12.0	47	62	29	24	5	117 1878	Nil (*a*)	89 5/78*	0.0
April	11.5	57	72	37	44	9	154 1971	Nil 1945	80 5/60*	0.0
May	10.8	67	77	49	69	13	197 1875	3 1934	70 1/53*	0.4
June	10.0	75	84	63	72	15	218 1916	6 1958	54 1/20	1.1
July	9.5	76	87	66	67	16	138 1890	10 1899	44 10/65*	1.3
August	9.7	70	80	54	62	16	157 1852	8 1944	57 19/51*	0.6
September	10.0	61	72	44	51	13	148 1923	7 1951	40 20/23	0.2
October	10.2	52	67	29	44	11	133 1949	1 1969	57 16/08	0.0
November	10.5	45	64	31	31	8	113 1839	1 1963	75 12/60	0.0
December	11.3	42	56	31	26	6	101 1861	Nil 1904	61 23/13	0.0
Year Totals	..	..	..	..	**531**	**120**	.. ..	.. ..	.. ..	**3.6**
Year Averages	**10.5**	**56**	..	..	..	..	.. ..	.. ..	.. ..	..
Year Extremes	..	..	**87**	**29**	..	..	**218** **6/1916**	**Nil (*b*)**	**141** **7/2/25**	..

(*a*) Various years. (*b*) December to April, various years.

Figures such as 3/55, 21/84, etc. indicate, in respect of the month of reference, the day and year of the occurrence. Dates marked with an asterisk(*) relate to nineteenth century.

CLIMATIC DATA: BRISBANE, QUEENSLAND

(Lat. 27° 28′ S., Long. 153° 2′ E. Height above M.S.L. 41 metres)

BAROMETER, WIND, EVAPORATION, THUNDER, CLOUDS, AND CLEAR DAYS

Month	Mean of 9 a.m. and 3 p.m. atmospheric pressure reduced to mean sea level (mb)	*Wind (height of anemometer 32 metres)*					Mean amt evaporation (mm)	No. days thunder	Mean daily amt clouds 9 a.m., 3 p.m., 9 p.m. (a)	No. clear days
		Average (km/h)	Highest mean speed in one day (km/h)	Highest gust speed (km/h)	Prevailing direction					
					9 a.m.	3 p.m.				
No. of years of record	89	60	60	60	25(b)	25(b)	9	89	84	68
January	1,011.7	12.1	31.8 23/47	109	SE	ENE	189	4.6	4.6	3.3
February	1,012.5	11.9	37.3 21/54	108	SSW	ENE	150	3.7	4.8	2.4
March	1,014.6	11.4	32.7 1/29	106	SSW	ESE	149	2.3	4.3	5.6
April	1,017.3	10.5	26.8 3/25	104	SW	ESE	127	1.4	3.6	7.8
May	1,018.3	9.8	28.8 17/26	87	SW	WSW	89	0.6	3.3	10.0
June	1,018.5	10.0	30.5 14/28	95	SW	WSW	70	0.5	3.3	10.5
July	1,018.8	9.7	35.4 13/54	111	SW	WSW	77	0.4	2.9	13.3
August	1,018.8	10.0	23.8 4/35	100	SW	NE	105	1.4	2.6	13.5
September	1,017.6	10.5	25.9 1/48	102	SW	NE	133	2.8	2.8	12.4
October	1,015.9	11.1	25.3 1/41	100	SSW	NE	168	4.4	3.5	8.5
November	1,014.1	11.4	24.9 10/28	111	SE	NE	191	5.7	3.9	6.1
December	1,012.1	11.9	31.3 15/26	128	SSE	NE	209	6.6	4.3	4.5
Year: **Totals**	..	..	.. ..	..	..	..	1,656	34.2	..	97.7
Year: **Averages**	1,015.9	10.8	.. ..	..	SW	ENE	..	..	3.6	..
Year: **Extremes**	..	..	35.7 21/2/54	128	..	..	..	..	..	..

(a) Scale 0–8. (b) 1950–1974.

TEMPERATURE AND SUNSHINE

Month	*Air temperature daily readings (°Celsius)*			*Extreme air temperature (°Celsius)*		*Extreme temperature (°Celsius)*		Mean daily hours sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest	Highest in sun	Lowest on grass	
No. of years of record	89	89	89	89	89	50(a)	89	67
January	29.4	20.6	25.0	43.2 26/40	14.9 4/93*	76.2 2/37	9.9 4/93*	7.5
February	28.9	20.4	24.7	40.9 21/25	14.7 21/31	74.0 6/10	9.5 22/31	7.0
March	27.8	19.2	23.5	38.8 13/65	11.3 29/13	72.5 6/39	7.4 29/13	6.8
April	26.0	16.4	21.2	36.1 19/73	6.9 25/25	67.7 11/16	2.6 24/25	7.1
May	23.1	13.1	18.0	32.4 21/23	4.8 30/51	63.9 1/10	−1.2 8/97*	6.8
June	20.8	10.7	15.7	31.6 19/18	2.4 29/08	57.8 3/18	−3.7 23/88*	6.6
July	20.3	9.4	14.9	29.1 23/46	2.3 (b)	63.4 20/15	−4.5 *11/90*	7.0
August	21.8	10.0	15.9	32.8 14/46	2.7 13/64	61.1 20/17	−2.7 9/99*	7.8
September	24.0	12.7	18.3	38.3 22/43	4.8 1/96	68.6 26/03	−0.9 1/89*	8.3
October	26.1	15.8	20.9	40.7 30/58	6.3 3/99*	69.7 31/18	1.6 8/89*	8.2
November	27.8	17.9	22.9	41.2 18/13	9.2 2/05	72.4 7/89*	3.8 1/05	8.2
December	29.1	19.6	24.5	41.1 26/93*	13.5 5/55	74.4 28/42	9.5 3/94*	8.1
Year: **Averages**	25.4	15.5	20.5	..	..	..	..	7.5
Year: **Extremes**	..	..	..	43.2 26/1/1940	2.3	76.2 2/1/1937	−4.5 11/7/1890	..

(a) 1887–1926, 1936–March 1947. (b) *12/1894* and *2/1896*.

HUMIDITY, RAINFALL, AND FOG

Month	Vapour pressure mean 9 a.m. (mb)	*Rel. hum. (%) at 9 a.m.*			*Rainfall (millimetres)*					Fog Mean No. days
		Mean	Highest mean	Lowest mean	Mean mthly	Mean No. of days of rain	Greatest monthly	Least monthly	Greatest in one day	
No. of years of record	64	89	89	89	124	116	123	123	123	89
January	21.7	65	79	53	167	13	872 1974	8 1919	465 21/87*	0.5
February	22.0	69	82	55	161	14	1,026 1893	15 1849	270 6/31	0.6
March	20.9	71	85	56	144	15	865 1870	Nil 1849	284 14/08	1.1
April	17.5	70	80	56	88	11	388 1867	1 1944	178 3/72	2.1
May	14.3	71	85	59	69	9	352 1876	Nil 1846	143 9/79*	3.0
June	12.1	72	84	54	69	8	647 1967	Nil 1847	283 12/67	2.9
July	11.1	70	88	53	54	7	330 1973	Nil (a)	193 20/65	3.0
August	11.7	66	80	53	48	7	373 1879	Nil (b)	124 12/87*	3.6
September	13.8	63	76	47	48	8	138 1886	3 1907	79 12/65	2.5
October	16.0	60	72	48	74	9	456 1972	(c) 1948	136 25/49	1.2
November	18.1	59	72	45	95	10	315 1917	Nil 1842	143 8/66*	0.5
December	20.1	61	70	51	129	12	441 1942	9 1865	168 28/71*	0.3
Year: **Totals**	..	..	..	..	1,157	123	.. ..	.. ..	.. ..	21.3
Year: **Averages**	16.6	66	..	..	..	..	.. ..	.. ..	.. ..	..
Year: **Extremes**	..	..	88	45	..	..	1,026 2/1893	Nil Various	465 21/1/1887	..

(a) 1841 and 1951. (b) 1862, 1869 and 1880. (c) Less than 1 mm.

Figures such as 23/47, 4/93, etc. indicate, in respect of the month of reference, the day and year of the occurrence. Dates marked with an asterisk(*) relate to nineteenth century.

CLIMATIC DATA: SYDNEY, NEW SOUTH WALES

(Lat. 33° 52′ S., Long. 151° 12′ E. Height above M.S.L. 42 metres)

BAROMETER, WIND, EVAPORATION, THUNDER, CLOUDS, AND CLEAR DAYS

Month	Mean of 9 a.m. and 3 p.m. atmospheric pressure reduced to mean sea level (mb)	Wind (height of anemometer 22 metres)					Mean amt evaporation (mm)	No. days thunder	Mean daily amt clouds 9 a.m., 3 p.m., 9 p.m. (a)	No. clear days
		Average (km/h)	Highest mean speed in one day (km/h)	Highest gust speed (km/h)	Prevailing direction 9 a.m.	Prevailing direction 3 p.m.				
No. of years of record	66	25(b)	25(b)	25(b)	25(b)	25(b)	84(c)	56	114	65
January	1,012.7	12.3	30.3 10/49	150	NE	NE	189	3.3	4.7	4.9
February	1,014.2	11.6	30.3 18/57	101	NE	ENE	142	2.5	4.8	4.5
March	1,016.4	10.5	33.3 10/44	93	WNW	ENE	142	1.7	4.4	5.7
April	1,018.3	10.2	36.2 24/44	116	W	ENE	108	1.3	4.1	7.3
May	1,018.7	10.5	33.8 18/55	101	W	ENE	85	0.9	3.9	7.7
June	1,018.9	11.6	36.0 10/47	135	W	WSW	58	0.8	4.0	8.0
July	1,018.5	11.5	34.3 20/51	106	W	WSW	73	0.8	3.5	10.5
August	1,017.9	12.1	39.6 9/51	109	WNW	WNW	112	1.4	3.3	10.4
September	1,017.0	11.6	35.1 23/42	113	WNW	NE	150	1.8	3.5	9.1
October	1,015.1	12.3	39.4 1/57	153	WNW	ENE	203	2.7	4.1	6.5
November	1,013.4	12.4	31.9 21/54	114	WNW	ENE	190	3.6	4.5	5.2
December	1,012.1	12.3	36.2 11/52	121	NE	ENE	225	3.8	4.6	4.8
Year Totals	..	..	.. ..	..	..	..	1,677	24.7	..	84.7
Year Averages	1,016.1	11.6	.. ..	..	WNW	ENE	..	..	4.2	..
Year Extremes	..	..	39.6 9/8/51	153	..	..	..	..	..	..

(a) Scale 0–8. (b) Years 1938–1962 inclusive. (c) Richmond records.

TEMPERATURE AND SUNSHINE

Month	Air temperature daily readings (°Celsius)			Extreme air temperature (°Celsius)		Extreme temperature (°Celsius)		Mean daily hours sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest	Highest in sun	Lowest on grass	
No. of years of record	117	117	117	117	117	84(a)	117	55
January	25.7	18.3	22.0	45.3 14/39	10.6 18/49	73.5 26/15	6.5 6/25	7.2
February	25.4	18.4	21.9	42.1 8/26	9.6 28/63*	76.3 14/39	6.0 22/33	6.8
March	24.5	17.3	20.9	39.2 3/69*	9.3 14/86*	70.2 10/26	4.4 17/13	6.3
April	22.1	14.5	18.3	33.0 (b)	7.0 27/64*	62.3 10/77*	0.7 24/09	6.2
May	19.2	11.2	15.2	30.0 1/19	4.4 30/62*	54.3 1/96*	−1.5 25/17	5.8
June	16.6	9.1	12.8	26.9 11/31	2.1 22/32	52.1 2/23	−2.2 22/32	5.2
July	15.8	7.8	11.8	25.7 22/26	2.2 12/90*	51.9 19/77*	−4.4 4/93*	6.2
August	17.4	8.7	13.1	30.4 24/54	2.7 3/72*	65.0 30/78*	−3.3 4/09	6.8
September	19.6	10.8	15.2	34.6 26/65	4.9 2/45	61.2 12/78*	−1.1 17/05	7.1
October	21.9	13.3	17.6	37.4 4/42	5.7 6/27	66.8 20/33	0.4 9/05	7.3
November	23.5	16.3	19.4	40.3 6/46	7.7 1/05	70.3 28/99*	1.9 21/67	7.6
December	24.9	17.2	21.1	42.2 20/57	9.1 3/24	73.5 27/89*	5.2 3/24	7.4
Year Averages	21.4	13.6	17.4	..	..	..	..	6.7
Year Extremes	..	..	..	45.3 14/1/39	2.1 22/6/32	76.3 14/2/39	−4.4 4/7/1893	..

(a) Records discontinued 1946. (b) 1/36 and 10/69.

HUMIDITY, RAINFALL, AND FOG

Month	Vapour pressure mean 9 a.m. (mb)	Rel. hum. (%) at 9 a.m.			Rainfall (millimetres)					Fog Mean No. days
		Mean	Highest mean	Lowest mean	Mean mthly	Mean No. of days of rain	Greatest monthly	Least monthly	Greatest in one day	
No. of years of record	100	100	100	100	117	117	117	117	117	55
January	18.8	68	78	58	100	13	388 1911	6 1932	180 13/11	0.3
February	19.2	70	81	60	115	13	564 1950	3 1939	226 25/73*	0.6
March	18.3	74	85	62	131	14	521 1942	8 1965	281 28/42	1.5
April	15.0	74	87	63	126	13	622 1861	2 1868	191 29/60*	2.1
May	11.9	75	90	63	123	13	585 1919	4 1957	212 28/89*	3.1
June	10.2	76	89	63	133	12	643 1950	4 1962	131 16/84*	2.7
July	9.6	74	88	59	104	11	336 1950	2 1970	198 7/31	2.1
August	9.5	68	84	54	81	11	378 1899	1 1885	140 22/71	1.7
September	11.3	66	79	49	69	11	357 1879	2 1882	145 10/79*	0.9
October	13.0	62	77	46	76	12	283 (a)	2 1971	162 13/02	0.6
November	15.0	62	79	42	78	12	577 1961	2 1915	133 27/55	0.5
December	17.6	64	77	51	79	13	402 1920	6 1913	121 13/10	0.4
Year Totals	..	..	..	..	1,215	148	.. ..	.. ..	.. ..	16.3
Year Averages	14.1	69	..	..	..	..	.. ..	.. ..	.. ..	..
Year Extremes	..	..	90	42	..	..	643 6/1950	1 8/1885	281 28/3/1942	..

(a) 1916 and 1959.

Figures such as 10/49, 28/63, etc. indicate, in respect of the month of reference, the day and year of the occurrence. Dates marked with an asterisk(*) relate to nineteenth century.

CLIMATIC DATA: CANBERRA, AUSTRALIAN CAPITAL TERRITORY

(Lat. 35° 19′ S., Long. 149° 11′ E. Height above M.S.L. 571 metres)

BAROMETER, WIND, EVAPORATION, THUNDER, CLOUDS, AND CLEAR DAYS

Month	*Mean of 9 a.m. and 3 p.m. atmospheric pressure reduced to mean sea level (mb)*	*Wind (height of anemometer 10 metres)*					*Mean amt evaporation (mm)*	*No. days thunder*	*Mean daily amt clouds 9 a.m., 3 p.m., 9 p.m. (a)*	*No. clear days*
		Average (km/h)	*Highest mean speed in one day (km/h)*	*Highest gust speed (km/h)*	*Prevailing direction*					
					9 a.m.	*3 p.m.*				
No. of years of record	36	44(*b*)	44(*b*)	36(*c*)	36(*c*)	36(*c*)	8	36	36	36(*d*)
January	1,012.1	6.6	24 24/33	121	NW	NW	242	3.3	4.1	7.7
February	1,013.1	6.1	25 24/33	104	NW	NW	194	3.0	4.4	6.5
March	1,016.0	5.3	29 28/42	111	SE	NW	165	1.7	4.2	7.6
April	1,018.8	5.0	30 8/45	106	NW	NW	109	0.8	4.2	6.9
May	1,019.0	4.4	21 27/58	104	NW	NW	71	0.4	4.5	6.7
June	1,021.0	4.8	26 2/30	96	NW	NW	46	0.2	4.6	6.5
July	1,020.2	5.0	38 7/31	102	NW	NW	54	0.1	4.4	7.0
August	1,018.5	5.9	25 25/36	113	NW	NW	77	0.8	4.4	6.7
September	1,017.4	6.0	28 28/34	107	NW	NW	115	1.1	4.1	7.9
October	1,014.8	6.5	23 12/57	119	NW	NW	165	2.2	4.4	6.1
November	1,011.9	6.9	28 28/42	128	NW	NW	200	3.3	4.4	5.7
December	1,010.7	6.9	26 11/38	106	NW	NW	259	3.4	4.1	7.5
Year **Totals**	..	..	..	..	..	..	1,697	20.3	..	82.8
Year **Averages**	1,016.1	5.8	..	..	NW	NW	..	..	4.3	6.9
Year **Extremes**	..	..	38 7/7/31	128	..	..	..	..	..	..

(*a*) Scale 0–8. (*b*) Recorded at Forestry and Timber Bureau, Yarralumla, where a cup anemometer is installed. (*c*) Recorded at Meteorological office, R.A.A.F. Fairbairn, where a Dines Pressure Tube anemometer is installed. (*d*) 1940-75. Formerly assessed over 37-year period at Yarralumla.

TEMPERATURE AND SUNSHINE

Month	*Air temperature daily readings (°Celsius)*			*Extreme air temperature (°Celsius)*		*Extreme temperature (°Celsius)*		*Mean daily hours sunshine*
	Mean max.	*Mean min.*	*Mean*	*Highest*	*Lowest*	*Highest in sun*	*Lowest on grass*	
No. of years of record	36	36	36	36	36	..	22	37
January	27.5	12.9	20.2	41.4 31/68	1.8 1/56	..	−0.4 1/56	8.9
February	26.6	12.6	19.6	42.2 1/68	3.0 16/62	..	0.2 17/70	8.2
March	24.3	10.4	17.3	36.4 9/40	−1.1 24/67	..	−4.0 (*a*)	7.5
April	19.6	6.5	13.1	32.6 12/68	−3.3 26/72	..	−8.3 24/69	6.9
May	14.9	2.8	8.9	24.5 10/67	−7.5 30/76	..	−10.4 26/69	5 6
June	12.0	0.8	6.4	20.1 3/57	−8.5 8/57	..	−13.4 25/71	4.8
July	11.1	−0.3	5.4	19.7 29/75	−10.0 11/71	..	−15.1 11/71	5.1
August	12.6	0.8	6.7	21.7 24/54	−7.8 6/74	..	−12.8 11/69	6.1
September	15.8	2.7	9.3	28.6 26/65	−5.6 5/40	..	−10.6 12/71	7.4
October	19.0	5.8	12.4	32.7 13/46	−3.3 4/57	..	−6.2 4/57	7.9
November	22.2	8.2	15.1	38.8 19/44	−1.8 28/67	..	−6.3 28/67	8.7
December	26.0	11.1	18.6	38.8 21/53	1.1 18/64	..	−3.9 18/64	9.1
Year **Averages**	19.3	6.2	12.7	..	..	..	..	7.2
Year **Extremes**	..	..	..	42.2 1/2/68	−10.0 11/7/71	..	−15.1 11/7/71	..

(*a*) 30/58 and 24/67.

HUMIDITY, RAINFALL, AND FOG

Month	*Vapour pressure mean 9 a.m. (mb)*	*Rel. hum. (%) at 9 a.m.*			*Rainfall (millimetres)*					*Fog Mean No. days*
		Mean	*Highest mean*	*Lowest mean*	*Mean mthly*	*Mean No. of days of rain*	*Greatest monthly*	*Least monthly*	*Greatest in one day*	
No. of years of record	36(*a*)	36	36	36	36	36	36	36	36	36
January	13.1	60	75	42	61	8	164 1941	1 1947	95 12/45	1.1
February	14.0	65	81	53	59	7	145 1948	Nil 1968	69 20/74	1.2
March	13.1	69	81	53	51	7	312 1950	1 1954	66 5/59	2.8
April	10.7	75	84	38	50	8	164 1974	2 1942	75 2/59	4.1
May	8.7	84	96	73	51	9	150 1953	1 1976	96 3/48	7.5
June	7.1	85	97	73	39	9	126 1956	5 1971	45 25/56	7.6
July	6.6	84	93	68	38	10	103 1960	4 1970	35 10/57	7.7
August	7.1	80	92	58	47	12	161 1976	7 1944	48 29/74	5.0
September	8.1	74	82	55	50	10	116 1970	6 1946	41 16/62	4.1
October	10 0	67	82	50	73	12	148 1959	6 1940	105 21/59	3.1
November	10.7	59	76	38	64	10	135 1961	13 1940	64 9/50	1.4
December	12.3	59	74	43	56	8	215 1947	Nil 1967	87 30/48	0.6
Year **Totals**	..	..	..	..	639	110	..	..	..	46.2
Year **Averages**	9.3	72	..	..	..	..	..	..	..	..
Year **Extremes**	..	..	97	38	..	..	312 3/50	Nil (*b*)	105 21/10/59	..

(*a*) Formerly assessed over 38-year period at Forestry and Timber Bureau, Yarralumla. (*b*) 12/67 and 2/68.

Data shown in the above tables relate to the Meteorological Office, R.A.A.F., Fairbairn, except where otherwise indicated, and generally cover years up to 1976.

Figures such as 24/33, 31/68, etc., indicate, in respect of the month of reference, the day and year of the occurrence.

CLIMATIC DATA: MELBOURNE, VICTORIA

(Lat. 37° 49′ S., Long. 144° 58′ E. Height above M.S.L. 35 metres)

BAROMETER, WIND, EVAPORATION, THUNDER, CLOUDS, AND CLEAR DAYS

Month	Mean of 9 a.m. and 3 p.m. atmospheric pressure reduced to mean sea level (mb)	Wind (height of anemometer 28 metres)					Mean amt evaporation (mm)	No. days thunder	Mean daily amt clouds 9 a.m., 3 p.m., 9 p.m. (a)	No. clear days
		Average (km/h)	Highest mean speed in one day (km/h)	Highest gust speed (km/h)	Prevailing direction 9 a.m.	Prevailing direction 3 p.m.				
No. of years of record	119	36(b)	63	66	57	57	9	68	119	68
January	1,012.8	12.8	34.0 27/41	106	S	S	228	1.7	4.1	6.7
February	1,014.3	12.4	30.6 13/47	119	S	S	198	1.9	4.0	6.1
March	1,016.8	11.3	29.0 3/61	106	N	S	155	1.3	4.3	5.5
April	1,018.9	10.9	33.7 27/71	108	N	S	97	0.7	4.7	4.2
May	1,019.1	11.4	33.0 4/61	116	N	N	59	0.4	5.2	2.9
June	1,019.0	11.4	36.7 16/47	103	N	N	38	0.2	5.3	2.8
July	1,018.6	12.8	36.9 24/70	109	N	N	47	0.2	5.2	2.5
August	1,017.5	12.5	34.3 20/42	108	N	N	60	0.6	5.0	2.7
September	1,016.0	12.7	34.0 15/64	111	N	S	91	0.8	4.8	3.6
October	1,014.7	12.8	30.4 6/68	111	N	S	130	1.6	4.8	3.4
November	1,013.9	13.3	35.8 8/71	114	SW	S	161	1.9	4.9	3.2
December	1,012.4	13.1	33.8 12/52	100	S	S	209	2.2	4.5	4.4
Year — Totals	..	..	.. ..	..	..	..	1,468	13.4	..	48.0
Year — Averages	1,016.2	12.3	.. ..	..	N	S	..	..	4.7	..
Year — Extremes	..	..	36.9 24/7/70	119	..	..	..	..	..	..

(a) Scale 0–8. (b) Early records not comparable. (c) Records to 1966.

TEMPERATURE AND SUNSHINE

Month	Air temperature daily readings (°Celsius)			Extreme air temperature (°Celsius)		Extreme temperature (°Celsius)		Mean daily hours sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest	Highest in sun	Lowest on grass	
No. of years of record	120	120	120	120	120	86(a)	116	52(b)
January	25.8	13.9	19.9	45.6 13/39	5.6 28/85*	81.4 14/62*	−1.0 28/85*	8.1
February	25.7	14.2	19.9	43.1 7/01	4.6 24/24	75.3 15/70*	−0.6 6/91*	7.5
March	23.7	12.8	18.3	41.7 11/40	2.8 17/84*	73.6 1/68*	−1.7 (c)	6.6
April	20.1	10.5	15.3	34.9 5/38	1.6 24/88*	66.7 8/61*	−3.9 23/97*	5.1
May	16.5	8.3	12.4	28.7 7/05	−1.2 29/16	61.4 2/59*	−6.1 26/16	3.9
June	13.9	6.6	10.3	22.4 2/57	−2.2 11/66	53.9 11/61*	−6.7 30/29	3.4
July	13.3	5.7	9.5	23.1 30/75	−2.8 21/69*	52.1 27/80*	−6.4 12/03	3.7
August	14.8	6.4	10.6	25.0 20/85*	−2.1 11/63*	58.6 29/69*	−5.9 14/02	4.6
September	17.1	7.6	12.4	31.4 28/28	−0.6 3/40	61.2 20/67*	−5.1 8/18	5.5
October	19.5	9.2	14.4	36.9 24/14	0.1 3/71*	67.9 28/68*	−4.0 22/18	5.9
November	21.8	10.8	16.3	40.9 27/94*	2.4 2/96*	70.9 29/65*	−4.1 2/96*	6.5
December	24.1	12.6	18.4	43.7 *15/76*	4.4 4/70*	76.8 20/69*	0.7 1/04	7.3
Year — Averages	19.9	9.9	14.8	.. ..	.. ..	.. ..	.. ..	5.7
Year — Extremes	..	..	..	45.6 13/1/39	−2.8 21/7/69	81.4 14/1/62	−6.7 30/6/29	..

(a) Discontinued 1946. (b) Discontinued 1967. (c) 17/1884 and 20/1897.

HUMIDITY, RAINFALL, AND FOG

Month	Vapour pressure mean 9 a.m. (mb)	Rel. hum. (%) at 9 a.m.			Rainfall (millimetres)					Fog Mean No. days
		Mean	Highest mean	Lowest mean	Mean mthly	Mean No. of days of rain	Greatest monthly	Least monthly	Greatest in one day	
No. of years of record	68	68	68	68	120	120	120	120	120	118
January	13.1	61	68	50	48	8	176 1963	(a) 1932	108 29/63	0.1
February	14.1	63	77	48	50	7	238 1972	(a) 1965	87 26/46	0.3
March	13.3	66	79	50	54	9	191 1911	4 1934	90 5/19	0.7
April	11.7	72	82	66	59	11	195 1960	Nil 1923	80 23/60	1.8
May	10.3	79	88	69	57	14	142 1942	4 1934	51 15/74	3.6
June	9.3	83	92	73	50	14	114 1859	8 1858	44 22/04	4.6
July	8.9	81	87	73	49	15	178 1891	15 1902	74 12/91*	4.3
August	9.1	75	82	65	50	15	111 1939	12 1903	54 17/81*	2.3
September	9.5	68	76	60	59	14	201 1916	13 1907	59 23/16	0.8
October	10.5	63	72	52	68	14	193 1869	7 1914	61 21/53	0.4
November	11.3	61	70	52	59	12	206 1954	6 1895	73 21/54	0.2
December	12.5	60	69	48	58	10	182 1863	1 1972	100 4/54	0.2
Year — Totals	..	..	..	..	661	143	.. ..	.. ..	.. ..	19.3
Year — Averages	11.1	69	..	..	..	..	.. ..	.. ..	.. ..	..
Year — Extremes	..	..	92	43	..	..	238 2/72	Nil 4/23	108 29/1/63	..

(a) Less than 1 mm.

Figures such as 27/41, 28/85, etc., indicate, in respect of the month of reference, the day and year of the occurrence. Dates marked with an asterisk(*) relate to nineteenth century.

CLIMATIC DATA: HOBART, TASMANIA

(Lat. 42° 53′ S., Long. 147° 20′ E. Height above M.S.L. 54 metres)

BAROMETER, WIND, EVAPORATION, THUNDER, CLOUDS, AND CLEAR DAYS

Month	Mean of 9 a.m. and 3 p.m. atmospheric pressure reduced to mean sea level (mb)	Wind (height of anemometer 12 metres)					Mean amt evaporation (mm)	No. days thunder	Mean daily amt clouds 9 a.m., 3 p.m., 9 p.m. (a)	No. clear days
		Average (km/h)	Highest mean speed in one day (km/h)	Highest gust speed (km/h)	Prevailing direction 9 a.m.	Prevailing direction 3 p.m.				
No. of years of record	90	63	64	84	30(b)	30(b)	10(c)	64	90	30(b)
January	1,010.6	12.6	33.5 30/16	130	NNW	SSE	167	1.0	5.0	1.9
February	1,012.9	11.5	40.6 4/27	121	NNW	SSE	135	1.0	4.9	2.3
March	1,014.3	11.0	34.4 13/38	127	NW	SSE	109	0.7	4.8	2.4
April	1,015.5	10.9	38.8 9/52	121	NW	W	70	0.3	5.0	1.7
May	1,015.4	10.4	35.4 21/65	135	NNW	NW	38	0.0	5.0	2.4
June	1,015.2	10.2	38.2 27/20	132	NW	NW	22	0.0	5.0	2.4
July	1,014.0	10.7	36.9 22/53	129	NNW	NNW	26	0.0	4.8	2.0
August	1,012.8	10.9	41.0 19/26	140	NNW	NW	44	0.1	4.8	2.1
September	1,011.4	12.5	43.1 28/65	150	NNW	NW	73	0.1	4.9	1.5
October	1,010.3	12.6	32.4 3/65	140	NNW	SW	107	0.4	5.2	1.0
November	1,009.8	12.8	34.1 18/15	135	NNW	S	123	0.6	5.3	1.3
December	1,009.4	12.4	37.7 1/34	122	NNW	SSE	150	0.8	5.3	1.1
Year Totals	..	..	.. ..	..	..	..	1,064	5.1	..	22.1
Year Averages	1,012.6	11.5	.. ..	..	NNW	W	..	..	5.0	..
Year Extremes	..	..	43.1 28/9/65	150	..	..	..	..	..	..

(a) Scale 0–8. (b) Standard thirty years normal (1911–1940). (c) Class "A" American pan.

TEMPERATURE AND SUNSHINE

Month	Air temperature daily readings (°Celsius)			Extreme air temperature (°Celsius)		Extreme temperature (°Celsius)		Mean daily hours sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest	Highest in sun	Lowest on grass	
No. of years of record	92	92	92	92	92	57(a)	87	79
January	21.4	11.5	16.5	40.8 4/76	4.5 (b)	71.1 (c)	−0.8 19/97*	7.9
February	21.5	11.8	16.7	40.2 12/99*	3.9 20/87*	73.9 24/98*	−2.0 —/87*	7.0
March	20.0	10.6	15.3	37.3 13/40	1.8 31/26	66.1 26/44	−2.5 30/02	6.4
April	17.1	8.7	12.9	30.6 1/41	0.6 14/63	61.1 18/93*	−3.9 —/86*	5.0
May	14.2	6.7	10.5	25.5 5/21	−1.6 30/02	53.3 (d)	−6.7 19/02	4.3
June	11.8	5.1	8.5	20.6 1/07	−2.8 25/72	50.0 12/94*	−7.7 24/63	3.9
July	11.4	4.4	7.9	21.0 30/75	−2.4 (f)	49.4 12/93*	−7.4 16/86*	4.3
August	12.8	5.0	8.9	22.0 28/14	−1.8 5/62	54.4 —/87*	−6.6 7/09	5.0
September	14.9	6.2	10.6	28.2 29/73	−0.6 16/97*	58.9 23/93*	−7.6 16/26	5.9
October	16.7	7.5	12.1	33.4 24/14	0.0 12/89*	68.9 9/93*	−4.6 (e)	6.3
November	18.5	9.0	13.8	36.8 26/37	1.6 16/41	55.6 19/92*	−3.4 1/08	7.0
December	20.2	10.5	15.4	40.7 30/97*	3.3 3/06	71.9 10/39	−2.6 —/86*	7.2
Year Averages	16.7	8.1	12.4	.. ..	.. ..	.. ..	.. ..	5.9
Year Extremes	..	..	..	40.8 4/1/1976	−2.8 25/6/72	73.9 24/2/1968	−7.7 24/6/1963	..

(a) Period 1934–1938 not comparable; records discontinued 1946. (b) 09/1937 and 11/1937. (c) 05/1886 and 13/1905. (d)—/1899 and —/1893. (e) 1/1886 and 1/1899. (f) 11/1895 and 7/1973.

HUMIDITY, RAINFALL, AND FOG

Month	Vapour pressure mean 9 a.m. (mb)	Rel. hum. (%) at 9 a.m.			Rainfall (millimetres)					Fog Mean No. days
		Mean	Highest mean	Lowest mean	Mean mthly	Mean No. of days of rain	Greatest monthly	Least monthly	Greatest in one day	
No. of years of record	77(a)	81	81	81	93	93	92	92	131	64
January	11.0	58	81	45	49	11	150 1893	4 1958	75 30/16	0.3
February	11.7	62	83	49	42	10	171 1964	3 1914	56 1/54	0.1
March	11.0	65	78	52	47	11	255 1946	7 1943	88 17/46	0.3
April	10.0	70	84	57	55	12	248 1960	2 1904	133 23/60	0.3
May	8.8	75	86	61	49	14	214 1958	4 1913	47 3/73	1.1
June	7.9	78	91	61	59	14	238 1954	7 (c)	147 7/54	1.7
July	7.6	78	87	72	54	15	157 1974	4 1950	64 18/22	1.4
August	7.9	73	86	59	49	16	161 1946	8 1892	58 14/90*	0.7
September	8.3	66	81	52	52	15	201 1957	10 1951	156 15/57	0.2
October	9.1	62	74	52	64	17	193 1947	10 1914	66 4/06	0.1
November	9.6	59	73	49	56	14	188 1885	9 (d)	94 30/85*	0.1
December	10.6	58	73	42	57	13	196 (b)	5 (e)	85 5/41	0.1
Year Totals	..	..	..	..	633	162	.. ..	.. ..	.. ..	6.1
Year Averages	9.5	67	..	..	..	..	.. ..	.. ..	.. ..	..
Year Extremes	..	..	91	42	..	..	255 3/1946	2 4/1904	156 15/9/57	..

(a) 1894–1970. (b) 1897 and 1916. (c) 1886 and 1967. (d) 1919 and 1921. (e) 1897, 1915 and 1931.

Figures such as 30/16, 12/99, etc. indicate, in respect of the month of reference, the day and year of the occurrence. Dates marked with an asterisk(*) relate to nineteenth century.

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CHAPTER 3

GENERAL GOVERNMENT

Parliamentary government

Scheme of parliamentary government

Under section 1 of the Commonwealth of Australia Constitution the legislative power of the Commonwealth is vested in the Parliament of the Commonwealth, which consists of the Sovereign, the Senate, and the House of Representatives. The Sovereign is represented throughout the Commonwealth by the Governor-General who, subject to the Constitution of the Commonwealth, has such powers and functions as the Sovereign is pleased to assign to him. In each State there is a State Governor who is the representative of the Sovereign for the State. The Governor has such powers within the State as are conferred upon him by the Letters Patent constituting his office and he exercises these powers in accordance with instructions issued to him by the Sovereign, detailing the manner in which his duties are to be fulfilled.

The Legislature in each State was bicameral until 1922, when the Queensland Parliament became unicameral with the abolition of the Upper House. In Queensland the sole legislative chamber is known as the Legislative Assembly. The Upper House is known in the Commonwealth Parliament as the Senate, and in the bicameral State Parliaments as the Legislative Council. The Lower House is known in the Commonwealth Parliament as the House of Representatives, in the State Parliaments of New South Wales, Victoria and Western Australia as the Legislative Assembly, and in the State Parliaments of South Australia and Tasmania as the House of Assembly. The extent of the legislative powers of the Parliaments is defined by the Commonwealth and State Constitutions respectively. In those States that have a bicameral legislature the Legislative Assembly or House of Assembly is the larger House.

The members of the Legislative Assembly or House of Assembly, as the case may be, of each State are elected by the people, the franchise extending to British subjects who are at least 18 years of age with certain residential qualifications. With the exception of the New South Wales Legislative Council, the members of State Legislative Councils are, in common with members of the Lower Houses, elected by the people of the respective States. In New South Wales a quarter of the members of the Legislative Council retire each three years, and the continuing members of the Council and the members of the Legislative Assembly, voting as an electoral body, elect members to fill the vacant positions. In all other States possessing a Legislative Council, members of the Council are elected by adult suffrage. In the Commonwealth Parliament the qualifications for the franchise are identical for both Houses, extending to British subjects who have lived in Australia for six months continuously and who are not less than 18 years of age.

The Sovereign

On 7 February 1952 the Governor-General and members of the Federal Executive Council proclaimed Princess Elizabeth Queen Elizabeth the Second, Queen of this Realm and of all Her other Realms and Territories, Head of the Commonwealth, Defender of the Faith, Supreme Liege Lady in and over the Commonwealth of Australia. The coronation of Her Majesty in Westminster Abbey took place on 2 June 1953. By the *Royal Style and Titles Act* 1973, which Her Majesty assented to in Canberra on 19 October 1973, the Parliament of the Commonwealth assented to the adoption by Her Majesty, for use in relation to Australia and its Territories, of the Style and Titles set forth in the Schedule to the Act. On the same day, also in Canberra, Her Majesty issued a Proclamation, under the Great Seal of Australia, appointing and declaring that Her Majesty's Style and Titles should henceforth be, in relation to Australia and its Territories, ' Elizabeth the Second, by the Grace of God Queen of Australia and Her other Realms and Territories, Head of the Commonwealth '.

The Governor-General

Powers and functions. As the Queen's representative in Australia, the Governor-General exercises certain prerogative powers and functions assigned to him by the Queen. Other powers and functions are conferred on him by the Constitution. Powers which have been so assigned or conferred include, among others, the power to grant pardons and to remit fines for offences against the laws of the

Commonwealth; to appoint certain officers in the Diplomatic or Consular Service; to appoint times for holding the sessions of the Parliament, prorogue Parliament, and dissolve the House of Representatives; to cause writs to be issued for general elections of members of the House of Representatives; to assent in the Queen's name to a proposed law passed by both Houses of the Parliament or withhold assent, or to reserve the law for the Queen's pleasure, or to return the proposed law to the House in which it originated and transmit therewith any amendments which he may recommend; to exercise executive power; to choose and summon Executive Councillors, who hold office during his pleasure; and to appoint Ministers of State for the Commonwealth. In addition, the command-in-chief of the defence forces of the Commonwealth is vested in the Governor-General as the Queen's representative.

Many Acts of the Commonwealth Parliament provide that the Governor-General may make regulations to give effect to the Act. The Governor-General may also be authorised by statute to issue proclamations—for example, to declare an Act in force. He has been given power by statute to legislate for certain of the Commonwealth Territories. Under the conventions of responsible government obtaining in British Commonwealth countries, the Governor-General's functions are exercised generally on the advice of Ministers of State.

The present Governor-General is His Excellency Sir Zelman Cowen, A.K., G.C.M.G., K.St.J., Q.C. who has held office since 8 December 1977.

Holders of office. Year Book No. 61 and earlier Year Books list the Governors-General since the inception of the Commonwealth of Australia.

Administrators. In addition to the holders of the office of Governor-General listed above, certain persons have, from time to time, been appointed as Administrator. Administrators are appointed in the event of the death, illness, or absence from Australia of the Governor-General, or for the period between the departure of a Governor-General and the arrival of his successor. Persons who have been Administrators are listed in Year Book No. 61 and earlier Year Books.

Governors of the States

Powers and functions. The Queen is represented in each of the States by a Governor, the office having been constituted by Letters Patent under the Great Seal of the United Kingdom of various dates. The Governors of the States exercise prerogative powers conferred on them by these Letters Patent, their Commissions of appointment, and the Governor's Instructions given them under the Royal Sign Manual and Signet or other instrument as specified in the Letters Patent. In addition, they have been invested with various statutory functions by State Constitutions and other Imperial Acts and by Acts of the Parliaments of the States.

A Governor of a State assents in the Queen's name to Bills passed by the Parliament of the State, except those reserved for the Royal assent. The latter include certain classes of Bills which are regulated by the Constitution Acts and by the Governor's Instructions. He administers the prerogative of mercy by the reprieve or pardon of criminal offenders within his jurisdiction, and may remit fines and penalties due to the Crown. In the performance of his functions generally, particularly those conferred by Statute, the Governor of a State acts on the advice of Ministers of State for the State.

Holders of office. The names of the present (August 1977) State Governors are as follows:

STATE GOVERNORS, AUGUST 1977

New South Wales—Sir Arthur Roden Cutler, V.C., K.C.M.G., K.C.V.O., C.B.E., K.St.J.

Victoria—Sir Henry Arthur Winneke, K.C.M.G., K.C.V.O., O.B.E., K.St.J., Q.C.

Queensland—Commodore Sir James Maxwell Ramsay, C.B.E., D.S.C.

South Australia—Sir Douglas Nicholls, K.C.V.O., O.B.E., K.St.J.*

Western Australia—Air Chief Marshal Sir Wallace Hart Kyle, G.C.B., K.C.V.O., C.B.E., D.S.O., D.F.C., K.St.J.

Tasmania—Sir Stanley Charles Burbury, K.C.V.O., K.B.E., K.St.J.

The Cabinet and executive government

Both in the Commonwealth and the States, executive government is based on the system which was evolved in Britain in the 18th Century, and which is generally known as 'Cabinet' or 'responsible' government. Its essence is that the head of the State (Her Majesty the Queen, and her representative the Governor-General or Governor) should perform governmental acts on the advice of her

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* Mr Keith Seaman became Governor of South Australia on 1 September 1977.

Ministers; that her Ministers of State should be appointed from members of Parliament belonging to the party, or coalition of parties, commanding a majority in the lower House; that the Ministry should be collectively responsible to that House for the Government of the country; and that the Ministry should resign if it ceases to command a majority there.

The Cabinet system operates chiefly by means of constitutional conventions, customs, or understandings, and through institutions that do not form part of the legal structure of the government at all. The Commonwealth and State Constitutions make fuller legal provision for the Cabinet system than the British Constitution does—for example, by requiring that Ministers shall either be, or within a prescribed period become, members of the Legislature. In general, however, the legal structure of the executive government remains the same as it was before the establishment of the Cabinet system.

The executive power of the Commonwealth is exercisable by the Governor-General, and that of the States by the Governor. In each case he is advised by an Executive Council, which, however, meets only for certain formal purposes, as explained below. The whole policy of a Ministry is, in practice, determined by some or all of the Ministers of State, meeting without the Governor-General or Governor, under the chairmanship of the Prime Minister or Premier. This group of Ministers is known as the Cabinet.

The Cabinet. The Cabinet of the Liberal/National Country Party Coalition Government comprises the twelve senior Ministers. Other Ministers attend meetings of Cabinet only when required. Meetings of the full Ministry are held when deemed necessary. There are six Standing Committees of the Cabinet with varying numbers of Cabinet and non-Cabinet Ministers. In Labor Governments all Ministers have been members of Cabinet. Cabinet meetings are private and deliberative and records of meetings are not made public. The Cabinet does not form part of the legal mechanisms of Government; the decisions it takes have, in themselves, no legal effect. As Ministers are the leaders of the party or parties commanding a majority in the lower House, the Cabinet substantially controls, in ordinary circumstances, not only the general legislative program of Parliament, but the whole course of Parliamentary proceedings. In effect, though not in form, the Cabinet, by reason of the fact that all Ministers are members of the Executive Council, is also the dominant element in the executive government of the country.

The Executive Council. This body is usually presided over by the Governor-General or Governor, the members thereof holding office during his pleasure. All Ministers of State must be members of the Executive Council. In the case of the Commonwealth Government and also in the case of the States of Victoria and Tasmania, Ministers remain members of the Executive Council on leaving office, but are not summoned to attend its meetings, for it is an essential feature of the Cabinet system that attendance should be limited to the Ministers of the day. The Meetings of the Executive Council are formal and official in character, and a record of proceedings is kept by the Secretary or Clerk. At Executive Council meetings the decisions of the Cabinet are, where necessary, given legal form, appointments made, resignations accepted, proclamations issued, and regulations and the like approved.

The appointment of Ministers. Legally, Ministers hold office during the pleasure of the Governor-General or Governor. In practice, however, the discretion of the Queen's representative in the choice of Ministers is limited by the conventions on which the Cabinet system rests. When a Ministry resigns, the Crown's custom is to send for the leader of the party which commands, or is likely to be able to command, a majority in the Lower House, and to commission him, as Prime Minister or Premier, to 'form a Ministry'—that is, to nominate other persons to be appointed as Ministers of State and to serve as his colleagues in the Cabinet.

Ministers in Upper and Lower Houses. The following table shows the distribution of Ministers in the Houses of each Parliament in August 1977.

AUSTRALIAN PARLIAMENTS: MINISTERS IN UPPER OR LOWER HOUSES AUGUST 1977

Ministers with seats in—	*Commonwealth*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
The Upper House .	6	1	6	(*a*)	3	3	1	20
The Lower House .	20	17	12	18	9	10	9	95
Total . .	**26**	**18**	**18**	**18**	**12**	**13**	**10**	**115**

(*a*) Abolished in 1922.

Commonwealth Government Ministeries

Names and tenure of office, 1901 to 1977. The following list shows the name of each Commonwealth Government Ministry to hold office since 1 January 1901 and the limits of its term of office.

COMMONWEALTH GOVERNMENT MINISTRIES, 1901 TO AUGUST 1977

(i) Barton Ministry, 1 January 1901 to 24 September 1903.
(ii) Deakin Ministry, 24 September 1903 to 27 April 1904.
(iii) Watson Ministry, 27 April 1904 to 17 August 1904.
(iv) Reid-McLean Ministry, 18 August 1904 to 5 July 1905.
(v) Deakin Ministry, 5 July 1905 to 13 November 1908.
(vi) Fisher Ministry, 13 November 1908 to 1 June 1909.
(vii) Deakin Ministry, 2 June 1909 to 29 April 1910.
(viii) Fisher Ministry, 29 April 1910 to 24 June 1913.
(ix) Cook Ministry, 24 June 1913 to 17 September 1914.
(x) Fisher Ministry, 17 September 1914 to 27 October 1915
(xi) Hughes Ministry, 27 October 1915 to 14 November 1916.
(xii) Hughes Ministry, 14 November 1916 to 17 February 1917.
(xiii) Hughes Ministry, 17 February 1917 to 10 January 1918.
(xiv) Hughes Ministry, 10 January 1918 to 9 February 1923.
(xv) Bruce-Page Ministry, 9 February 1923 to 22 October 1929.
(xvi) Scullin Ministry, 22 October 1929 to 6 January 1932.
(xvii) Lyons Ministry, 6 January 1932 to 7 November 1938.
(xviii) Lyons Ministry, 7 November 1938 to 7 April 1939.
(xix) Page Ministry, 7 April 1939 to 26 April 1939.
(xx) Menzies Ministry, 26 April 1939 to 14 March 1940.
(xxi) Menzies Ministry, 14 March 1940 to 28 October 1940.
(xxii) Menzies Ministry, 28 October 1940 to 29 August 1941.
(xxiii) Fadden Ministry, 29 August 1941 to 7 October 1941.
(xxiv) Curtin Ministry, 7 October 1941 to 21 September 1943.
(xxv) Curtin Ministry, 21 September 1943 to 6 July 1945.
(xxvi) Forde Ministry, 6 July 1945 to 13 July 1945.
(xxvii) Chifley Ministry, 13 July 1945 to 1 November 1946.
(xxviii) Chifley Ministry, 1 November 1946 to 19 December 1949.
(xxix) Menzies Ministry, 19 December 1949 to 11 May 1951.
(xxx) Menzies Ministry, 11 May 1951 to 11 January 1956.
(xxxi) Menzies Ministry, 11 January 1956 to 10 December 1958.
(xxxii) Menzies Ministry, 10 December 1958 to 18 December 1963.
(xxxiii) Menzies Ministry, 18 December 1963 to 26 January 1966.
(xxxiv) Holt Ministry, 26 January 1966 to 14 December 1966.
(xxxv) Holt Ministry, 14 December 1966 to 19 December 1967.
(xxxvi) McEwen Ministry, 19 December 1967 to 10 January 1968.
(xxxvii) Gorton Ministry, 10 January 1968 to 28 February 1968.
(xxxviii) Gorton Ministry, 28 February 1968 to 12 November 1969.
(xxxix) Gorton Ministry, 12 November 1969 to 10 March 1971.
(xl) McMahon Ministry, 10 March 1971 to 5 December 1972.
(xli) Whitlam Ministry, 5 December 1972 to 19 December 1972.
(xlii) Whitlam Ministry, 19 December 1972 to 11 November 1975.
(xliii) Fraser Ministry, 11 November 1975 to 22 December 1975.
(xliv) Fraser Ministry, 22 December 1975.

Names of Members of each Ministry to 8 July 1976. In Year Book No. 17, 1924, the names are given of each Ministry up to the Bruce-Page Ministry (9 February 1923 to 22 October 1929), together with the names of the successive holders of portfolios therein. Issue No. 39 contains a list which covers the period between 9 February 1923, the date on which the Bruce-Page Ministry assumed power, and 31 July 1951, showing the names of all persons who held office in each Ministry during that period. The names of members of subsequent Ministries are listed in successive issues of the Year Book from No. 39 to No. 61 inclusive.

COMMONWEALTH AND STATE LEADERS OF THE GOVERNMENT, AUGUST 1977†

Commonwealth—The Hon. J. M. Fraser, M.P. (Vic.) (L.P.)
New South Wales—The Hon. N. K. Wran, Q.C., M.L.A. (A.L.P.)
Victoria—The Hon. R. J. Hamer, E.D., M.L.A. (L.P.)
Queensland—The Hon. J. Bjelke-Petersen, M.L.A. (N.P.)
South Australia—The Hon. D. A. Dunstan, Q.C., M.H.A (A.L.P.)
Western Australia—The Hon. Sir Charles Court, O.B.E., M.L.A. (L.P.)
Tasmania—The Hon. W. A. Neilson, M.H.A. (A.L.P.)

COMMONWEALTH AND STATE LEADERS OF THE OPPOSITION, AUGUST 1977†

The Leader of the Opposition plays an important part in the Party system of government which operates in the Australian Parliaments. The following list gives the names of the holders of this position in each of the Parliaments in August 1977.

Commonwealth—The Hon. E. G. Whitlam, Q.C., M.P. (A.L.P.)
New South Wales—Sir Eric Willis, K.B.E., C.M.G., M.L.A. (L.P.)
Victoria—F. N. Wilkes, M.L.A. (A.L.P.)
Queensland—T. J. Burns, M.L.A. (A.L.P.)
South Australia—D. O. Tonkin, M.H.A. (L.P.)
Western Australia—The Hon. C. J. Jamieson, M.L.A. (A.L.P.)
Tasmania—The Hon. E. M. Bingham, Q.C., M.H.A. (L.P.)

Numbers and salaries of Commonwealth Government Ministers

Under Sections 65 and 66, respectively, of the Constitution of the Commonwealth of Australia the number of Ministers of State was not to exceed seven, and the annual sum payable for their salaries was not to exceed £12,000 ($24,000), each provision to operate, however, 'until the Parliament otherwise provides'.

Subsequently the number and salaries have been increased from time to time, and at August 1977 the number of Ministers is twenty-six and ministerial salaries range from $10,500 for a Minister not in Cabinet to $28,250 for the Prime Minister. An additional ministerial allowance of $13,200 a year is payable to the Prime Minister, $6,600 a year to the Deputy Prime Minister, the Treasurer, the Leader of the Government in the House of Representatives and the Leader of the Government in the Senate, and $5,500 a year to other Ministers.

All amounts payable in the foregoing paragraphs are in addition to amounts payable as Parliamentary allowances (*see* page 74).

Parliaments and elections

The Commonwealth Parliaments

The first Parliament of the Commonwealth of Australia was convened by proclamation dated 29 April 1901 by His Excellency the Marquis of Linlithgow, then Earl of Hopetoun, Governor-General. It was opened on 9 May 1901 by H.R.H. the Duke of Cornwall and York. The Rt Hon. Sir Edmund Barton, G.C.M.G., K.C., was Prime Minister.

The following table shows the number and duration of Parliaments since federation.

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† Party affiliation is indicated by the use of the following abbreviations: A.L.P.—Australian Labor Party; N.P.—National Party; L.P.—Liberal Party of Australia; N.C.P.—National Country Party of Australia.

COMMONWEALTH PARLIAMENTS

Number of Parliament	*Date of opening*	*Date of dissolution*
First	9 May 1901	23 November 1903
Second	2 March 1904	5 November 1906
Third	20 February 1907	19 February 1910
Fourth	1 July 1910	23 April 1913
Fifth	9 July 1913	30 July 1914(*a*)
Sixth	8 October 1914	26 March 1917
Seventh	14 June 1917	3 November 1919
Eighth	26 February 1920	6 November 1922
Ninth	28 February 1923	3 October 1925
Tenth	13 January 1926	9 October 1928
Eleventh	6 February 1929	16 September 1929
Twelfth	20 November 1929	27 November 1931
Thirteenth	17 February 1932	7 August 1934
Fourteenth	23 October 1934	21 September 1937
Fifteenth	30 November 1937	27 August 1940
Sixteenth	20 November 1940	7 July 1943
Seventeenth	23 September 1943	16 August 1946
Eighteenth	6 November 1946	31 October 1949
Nineteenth	22 February 1950	19 March 1951(*a*)
Twentieth	12 June 1951	21 April 1954
Twenty-first	4 August 1954	4 November 1955
Twenty-second	15 February 1956	14 October 1958
Twenty-third	17 February 1959	2 November 1961
Twenty-fourth	20 February 1962	1 November 1963
Twenty-fifth	25 February 1964	31 October 1966
Twenty-sixth	21 February 1967	29 September 1969
Twenty-seventh	25 November 1969	2 November 1972
Twenty-eighth	27 February 1973	11 April 1974(*a*)
Twenty-ninth	9 July 1974	11 November 1975(*a*)
Thirtieth	17 February 1976	

(*a*) A dissolution of both the Senate and the House of Representatives was granted by the Governor-General under section 57 of the Constitution.

There have been twenty-nine complete Parliaments since Federation. Until 1927 the Parliament met in Melbourne; it now meets in Canberra, the first meeting at Parliament House, Canberra, being opened by the Duke of York on 9 May 1927.

The twenty-ninth Parliament opened on 9 July 1974 and ended on 11 November 1975 when a dissolution of both the Senate and the House of Representatives was granted by the Governor-General under Section 57 of the Constitution. The date of elections for both Houses was fixed for 13 December 1975. Writs were issued by the Governor-General on 17 November 1975 for the House of Representatives elections in all States and Territories (except South Australia and Western Australia, for which States the writs were issued on 21 November 1975). State Governors issued writs for the Senate elections on the same dates as those issued for the House of Representatives elections in the respective States. On 17 November 1975 the Governor-General issued the writs for the Senate elections in the Australian Capital Territory and Northern Territory. For voting figures *see* page 71. For particulars of electors enrolled and of electors who voted in the several States and Territories at previous Commonwealth elections for Parliament *see* Year Book No. 60 and earlier issues.

A special article describing the Commonwealth Parliament, its functions and procedure, prepared by the Clerk of the Senate and the Clerk of the House of Representatives, appears in Year Book No. 49, pages 65-71.

Qualifications for membership and for franchise—Commonwealth Parliament

Qualifications necessary for membership of either House of the Commonwealth Parliament are possessed by any British subject, eighteen years of age or over and not disentitled on other grounds, who has resided in Australia for at least three years and who is, or is qualified to become, an elector of the Commonwealth Parliament. Qualifications for Commonwealth Parliament franchise are possessed by any British subject, not under eighteen years of age and not disentitled on other grounds, who has lived in Australia for six months continuously. Residence in a Subdivision for a period of one month prior to enrolment is necessary to enable a qualified person to enrol. Enrolment and voting are compulsory except that the compulsory enrolment provisions do not relate to an Aboriginal native of Australia. A member of the Defence Force on service outside Australia who is not less than eighteen years of age, is a British subject and has lived in Australia for six months continuously is entitled to vote at Commonwealth Parliament elections even though he may not be enrolled.

The principal reasons for disqualification of persons otherwise eligible for election as members of either Commonwealth House are: membership of the other House, allegiance to a foreign power, being attainted of treason, being convicted and under sentence for any offence punishable by imprisonment for one year or longer, being an undischarged bankrupt or insolvent, holding an office of profit under the Crown (with certain exceptions), or having pecuniary interest in any agreement with the public service of the Commonwealth Government except as a member of an incorporated company of more than twenty-five persons. Persons of unsound mind, attainted of treason, convicted and under sentence for any offence punishable by imprisonment for one year or longer, or persons who are holders of temporary entry permits under the *Migration Act* 1958 or are prohibited immigrants under that Act are excluded from the franchise. In the main, these or similar grounds for disqualification apply also to State Parliament membership and franchise. Aborigines are entitled to enrol and to vote at both Commonwealth and State elections in all States.

Commonwealth Parliaments and elections

From the establishment of the Commonwealth of Australia until 1949 the Senate consisted of thirty-six members, six being returned by each of the original federating States. The Constitution empowers Parliament to increase or decrease the size of the Parliament, and, as the population of Australia had more than doubled since its inception, the Parliament passed the *Representation Act* 1948 which provided that there should be ten Senators from each State instead of six, thus increasing the total to sixty Senators, enlarging both Houses of Parliament and providing a representation ratio nearer to the proportion which existed at Federation.

The *Senate (Representation of Territories) Act* 1973 (No. 39 of 1974), assented to on 7 August 1974, made provision for two Senators to be elected from both the Northern Territory and the Australian Capital Territory at the same time as the next election of Senators for a State or a general election for the House of Representatives, whichever first occurred. Consequently, at the election on 13 December 1975, 2 Senators were elected from each Territory, and the number of Senators increased to 64.

In accordance with the Constitution the total number of members of the House of Representatives must be as nearly as practicable double that of the Senate. Consequently, in terms of the Constitution and the Representation Act, from the date of the 1949 elections the number of members in the House of Representatives was increased from 74 to 121 (excluding the members for the internal Territories). As the States are represented in the House of Representatives on a population basis, the numbers were increased as follows: New South Wales—from 28 to 47; Victoria—from 20 to 33, Queensland—from 10 to 18; South Australia—from 6 to 10; and Western Australia—from 5 to 8. Tasmania's representation remained at 5 (the Constitution provides for a minimum of 5 members for each Original State). The increase in the number of members of Parliament necessitated a redistribution of seats and a redetermination of electoral boundaries. Redistributions are carried out by Distribution Commissioners appointed for each State. The redistributions are effected on a quota basis, but taking into account community interests, means of communication, physical features, existing boundaries, and other factors. An additional provision was introduced in February 1977 whereby no division having an area greater than 5,000 square kilometres is to have a greater number of electors than any division having an area of less than 5,000 square kilometres.

The population as disclosed by the Census taken on 30 June 1954 necessitated a futher alteration in representation in the House of Representatives in respect of New South Wales, South Australia, and Western Australia. Representation as from the general election for the House of Representatives on 10 December 1955 was: New South Wales 46, Victoria 33, Queensland 18, South Australia 11, Western Australia 9, Tasmania 5, the total number of members (excluding the members for the internal Territories) being increased from 121 to 122.

The population as disclosed by the Census taken on 30 June 1961 revealed that, under the provisions of the Representation Act, New South Wales, Queensland, and Western Australia would each lose one member in the House of Representatives, while Victoria would gain a member. The Distribution Commissioners' reports were duly laid before both Houses of Parliament, but the Government decided not to proceed with the proposals and announced that it would amend the Representation Act. In November 1964 the formula provided by Section 10 of the Representation Act for determining the number of members of the House of Representatives was amended so as to give a State an additional member for 'any portion of a quota'. Previously, an additional member could only be added to a State's representation if the remainder were 'greater than one-half of a quota'. The effect of that amendment would have been that at the next redistribution Victoria and South

Australia would each gain one member while all other States would retain their existing representation. However, no fresh redistribution was effected prior to the 1966 Census. Consequent upon the population changes disclosed by the Census taken on 30 June 1966, a redistribution of the State electoral division boundaries was carried out in 1968 and the following representation in the House of Representatives became effective as from the general election held on 25 October 1969; New South Wales 45, Victoria 34, Queensland 18, South Australia 12, Western Australia 9 and Tasmania 5, the total number of members (excluding the members for the internal Territories) being increased from 122 to 123.

The population as disclosed by the Census taken on 30 June 1971 revealed that, under the provisions of the Representation Act, Western Australia would gain an additional member of the House of Representatives as from the next general elections following a redistribution of the electoral boundaries in that State. Subsequently, Distribution Commissioners for that State were appointed, and published their final recommendations on 13 February 1974. These recommendations, redistributing Western Australia into ten electoral Divisions for the House of Representatives, were approved by Parliament in April 1974. The new electoral boundaries were proclaimed by the Governor-General on 19 April 1974.

A High Court judgement of 1 December 1975 indicated that the Representation Act failed to ensure that the determination of the number of Members of the House of Representatives to be chosen by the States in proportion to their populations would be effectively made in each triennial period. The decision of the Court was to the effect that—

Part III of the Commonwealth Electoral Act relating to the distribution of States into Electoral Divisions was not invalid; and

Sections 3, 4 and 12A of the Representation Act were invalid.

A further High Court judgement of 1 February 1977 decided that, although Section 10 of the Representation Act 1905 is valid, the amendment attempted to be made to that section by the Representation Act 1964 (see page 69) never became part of the section.

Legislation to give effect to these decisions was enacted on 28 February 1977 to ensure that, henceforth, the Chief Australian Electoral Officer will determine the representation entitlement of the several States during each Parliamentary triennium, based on the latest available statistics prepared by the Australian Statistician (rather than on census figures). Should the representation entitlement of any State change consequent upon such a determination, a redistribution will be required.

The Chief Australian Electoral Officer made his determination of the number of members of the House of Representatives as required by the new legislation on 21 March 1977.

This determination showed that the representation entitlements of the States changed as follows: New South Wales—from 45 to 43; Victoria—from 34 to 33; Queensland—from 18 to 19; South Australia—from 12 to 11. Western Australia remained at 10; Tasmania remained at 5.

Distribution Commissioners were appointed on 20 April 1977 to carry out a redistribution of all States (a redistribution being mandatory in New South Wales, Victoria, Queensland and South Australia).

Since the general election of 1922 the Northern Territory has been represented by one member in the House of Representatives, and the Australian Capital Territory has had similar representation since the elections of 1949. The member for the Australian Capital Territory has had full voting rights since the first sitting of the twenty-sixth Parliament. In May 1968 the Northern Territory Representation Act was amended to give full voting rights to the Member for the Northern Territory effective from 15 May 1968, the day on which the Act received Royal Assent.

Following Parliament's approval of the Australian Capital Territory Representation (House of Representatives) Bill in October 1973, a Distribution Committee was appointed for the purpose of distributing the Australian Capital Territory into two electoral Divisions. On 19 March 1974 the Committee published an initial redistribution proposal.

By early April 1974 there was an indication that the House of Representatives would be dissolved before the Distribution Committee could complete its task, in which event the Australian Capital Territory would be deprived of any representation in the next Parliament. Accordingly the *Australian Capital Territory Representation* (*House of Representatives*) *Act* 1974 was enacted to provide that the Territory be divided into two electoral divisions, adopting the boundaries recommended by the Distribution Committee on 19 March 1974. The 1974 House of Representative elections were held on those boundaries.

Members of the House of Representatives are elected for the duration of the Parliament, which is limited to three years. At elections for Senators the whole State constitutes the electorate. For the purpose of elections for the House of Representatives the State is divided into single electorates corresponding in number to the number of members to which the State is entitled. Further information regarding the Senate and the House of Representatives is given in earlier issues of the Year Book.

The *Commonwealth Electoral Act* 1948, enacted with the *Representation Act* 1948 which enlarged the Commonwealth Parliament (*see* page 69), changed the system of scrutiny and counting of votes in Senate elections from the alternative vote to that of proportional representation. For a description of the system *see* Year Book No. 38, pages 82–3. The method of voting for both the Senate and the House of Representatives is preferential.

Particulars of voting at Senate elections and elections for the House of Representatives up to 1974 appear in earlier issues of the Year Book. Additional information is available in the *Statistical Returns* issued by the Chief Electoral Officer following each election and printed as Parliamentary Papers.

The numbers of electors and primary votes cast for the major political parties in each State and Territory at the latest election for each House of the Commonwealth Parliament were as follows:

COMMONWEALTH PARLIAMENT ELECTIONS, 13 DECEMBER 1975

	N.S.W.	*Vic.*	*Qld.*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Australia*
HOUSE OF REPRESENTATIVES ELECTION									
Electors enrolled	2,961,698	2,234,778	1,206,231	789,004	658,419	255,402	40,885	115,916	8,262,333
Number of votes recorded for—									
Australian Labor Party	1,260,335	882,842	439,405	316,006	244,404	105,324	12,944	51,744	3,313,004
Liberal Party	1,100,672	887,685	370,041	365,353	326,679	131,003	..	50,727	3,232,160
National Country Party(*a*)	326,124	186,667	303,107	4,070	30,727	3,248	15,976	..	869,919
Liberal Movement	..	..	..	45,968	..	..	..	3,516	49,484
Democratic Labor Party	..	101,750	..	..	..	..	..	..	101,750
Australia Party	10,931	21,473	..	525	..	.	701	..	33,630
Workers Party	30,986	..	17,341	2,604	5,576	2,550	..	377	59,434
Others	43,072	17,280	3,700	6,642	1,664	..	..	840	73,198
Informal votes	52,760	42,008	14,604	18,201	14,334	4,569	996	1,822	149,294
Total votes recorded	**2,824,880**	**2,139,705**	**1,148 198**	**759,369**	**623,384**	**246,694**	**30,617**	**109,026**	**7,881,873**
SENATE ELECTION									
Electors enrolled	2,961,698	2,234,778	1,206,231	789,004	658,419	255,402	40,885	115,916	8,262,333
Number of votes recorded for—									
Australian Labor Party	1,123,462	811,773	387,740	277,800	203,151	78,310	10,207	38,867	2,931,310
Liberal Party; National Country Party(*a*)(*b*)	1,258,859	993,634	603,228	351,818	287,358	108,853	..	45,743	3,649,493
National Country Party(*a*)(*b*)	..	..	..	..	38,366	3,611	15,519	..	57,496
Liberal Movement	6,218	16,279	4,709	44,136	5,084	..	..	..	76,426
Democratic Labor Party	44,543	115,866	26,833	942	2,865	..	..	..	191,049
Australia Party	10,616	19,319	2,516	..	1,616	..	565	..	34,632
Workers Party	28,513	..	20,857	4,085	6,726	1,007	615	582	62,385
Others	77,537	9,206	7,326	5,048	10,946	30,538	1,521	19,800	161,922
Informal votes	275,132	173,628	94,989	75,540	67,272	24,375	2,190	4,034	717,160
Total votes recorded	**2,824,880**	**2,139,705**	**1,148,198**	**759,369**	**623,384**	**246,694**	**30,617**	**109,026**	**7,881,873**

(*a*) The National Country Party is known in the various States as follows: New South Wales—Australian Country Party; Victoria, Queensland and Tasmania—National Party; South Australia and Western Australia—National Country Party. In the Northern Territory it is known as the Country Liberal Party. (*b*) In New South Wales, Victoria and Queensland the Liberal Party and the National Country Party candidates stood as one group; in South Australia and the Australian Capital Territory only the Liberal Party stood as a group; in Western Australia and Tasmania the National Country Party and the National Party respectively, and the Liberal Party each stood as separate groups; in Northern Territory there was a Country Liberal Party group only.

The Senate and House of Representatives Election, 13 December 1975

Party representation of Members elected was as follows: *Senate*—Australian Labor Party, 27; Liberal Party of Australia, 27; National Country Party of Australia, 8; Independent, 1; Liberal Movement, 1; *House of Representatives*—Australian Labor Party, 36; Liberal Party of Australia, 68; National Country Party of Australia, 23.

Referendums

In accordance with section 128 of the Constitution any proposed law for the alteration of the Constitution, in addition to being passed by an absolute majority of each House of Parliament, must be submitted to a referendum of the electors in each State and must be approved by a majority of the electors in a majority of the States and by a majority of all the electors who voted before it can be presented for Royal Assent. Until the four referendums of May 1977, thirty-two such proposals had been submitted to referendums and the consent of the electors had been received in five cases: the first in relation to the election of Senators in 1906, the second and third in respect of State Debts—one in 1910 and the other in 1928, the fourth in respect of Social Services in 1946, and the fifth in respect of Aboriginals in 1967. In addition to referendums for alterations of the Constitution, other Commonwealth referendums have been held—two prior to Federation regarding the proposed Constitution and two regarding military service during the 1914–1918 War. For details of earlier referendums *see* Year Book No. 52, pages 66–8, and Year Book No. 60, pages 90–1.

On 16 February 1977, four Bills were introduced in the House of Representatives to alter the Constitution: the Constitution Alteration (Simultaneous Elections) Bill was designed to ensure that future Senate elections would be held simultaneously with House of Representatives elections; the Constitution Alteration (Senate Casual Vacancies) Bill was designed to write into the Constitution the principle that a casual Senate Vancancy should be filled by a member of the same political party as the former senator belonged to; the Constitution Alteration (Referendums) Bill was designed to give electors in the Australian Capital Territory and the Northern Territory the right to vote in referendums for the alteration of the Constitution; and the Constitution Alteration (Retirement of Judges) Bill was designed to provide for a maximum retirement age of seventy years for justices of the High Court and of other Federal Courts.

The proposed laws, after being passed by both Houses of Parliament, were submitted to the electors of the States at referendums held on 21 May 1977. At these referendums, three proposals were passed in all States and the proposal relating to Simultaneous Elections was passed by a substantial national majority. However, the proviso in Section 128 of the Constitution which requires a majority of the electors in a majority of the States as well as a majority of electors meant that the Simultaneous Elections Referendum was defeated.

Particulars of the voting at these referendums are shown in the following table:

CONSTITUTION ALTERATION REFERENDUMS, 21 MAY 1977

State	*Electors enrolled*	*Number of votes*			
		In favour of the proposed law	*Not in favour of the proposed law*	*Informal*	*Total*
CONSTITUTION ALTERATION (SIMULTANEOUS ELECTIONS) REFERENDUM					
New South Wales	3,007,511	1,931,775	800,331	42,282	2,774,388
Victoria	2,252,831	1,325,708	713,929	43,499	2,083,136
Queensland	1,241,426	534,968	590,942	12,932	1,138,842
South Australia	799,243	480,827	247,762	17,401	745,990
Western Australia	682,291	292,344	310,765	14,354	617,463
Tasmania	259,081	82,785	158,818	4,460	246,063
Total	**8,242,383**	**4,648,407**	**2,822,547**	**134,928**	**7,605,882**
CONSTITUTION ALTERATION (SENATE CASUAL VACANCIES) REFERENDUM					
New South Wales	3,007,511	2,230,218	502,171	41,999	2,774,388
Victoria	2,252,831	1,552,558	486,798	43,780	2,083,136
Queensland	1,241,426	662,732	463,165	12,945	1,138,842
South Australia	799,243	557,950	170,536	17,504	745,990
Western Australia	682,291	344,389	258,655	14,419	617,463
Tasmania	259,081	129,924	111,638	4,501	246,063
Total	**8,242,383**	**5,477,771**	**1,992,963**	**135,148**	**7,605,882**
CONSTITUTION ALTERATION (REFERENDUMS) REFERENDUM					
New South Wales	3,007,511	2,292,822	439,247	42,319	2,774,388
Victoria	2,252,831	1,647,187	391,855	44,094	2,083,136
Queensland	1,241,426	670,820	455,051	12,971	1,138,842
South Australia	799,243	606,743	121,770	17,477	745,990
Western Australia	682,291	437,751	165,049	14,663	617,463
Tasmania	259,081	150,346	91,184	4,533	246,063
Total	**8,242,383**	**5,805,669**	**1,664,156**	**136,057**	**7,605,882**
CONSTITUTION ALTERATION (RETIREMENT OF JUDGES) REFERENDUM					
New South Wales	3,007,511	2,316,999	414,070	43,319	2,774,388
Victoria	2,252,831	1,659,273	378,505	45,358	2,083,136
Queensland	1,241,426	734,183	391,227	13,432	1,138,842
South Australia	799,243	622,760	104,987	18,243	745,990
Western Australia	682,291	472,228	130,307	14,928	617,463
Tasmania	259,081	174,951	66,478	4,634	246,063
Total	**8,242,383**	**5,980,394**	**1,485,574**	**139,914**	**7,605,882**

The Parliaments of the States

This section contains summarised information; for greater detail refer to State Year Books.

Membership of State Parliaments. The following table shows the party distribution in each of the various State Parliaments at June 1976.

STATE PARLIAMENTS: MEMBERSHIP, BY PARTY AFFILIATION, AUGUST 1977

Party	*N.S.W.*	*Vic.*	*Qld.*	*S.A.*	*W.A.*	*Tas.*
UPPER HOUSE						
Australian Country Party (C.P.)	12	..	..	..	..	..
Australian Labor Party (A.L.P.)	24	9	..	10	10	2
Independent (Ind.)	..	..	..	..	..	17
Liberal Party of Australia (L.P.)	22	26	..	11	18	..
National Country Party (N.C.P.)(*a*)	..	..	..	..	4	..
National Party of Australia (Victoria) (N.P.A.)	..	5	..	..	..	..
Vacancy	2	..	..	..	..	..
Total	**60**	**40**	(*b*)	**21**	**32**	**19**
LOWER HOUSE						
Australian Country Party (C.P.)	18	..	..	..	..	..
Australian Labor Party (A.L.P.)	50	21	11	24	22	18
Independent (Ind.)	1	..	1	..	..	..
Independent Labor (Ind. Lab.)	..	1	..	..	..	..
Liberal Party of Australia (L.P.)	30	52	30	21	27	17
National Country Party (N.C.P.)(*a*)	..	..	..	1	6	..
National Party (N.P.)	..	..	39	..	..	..
National Party of Australia (Victoria) (N.P.A.)	..	7	..	..	..	..
New Liberal Movement (N.L.M.)	..	..	..	1	..	..
North Queensland Party (N.Q.P.)	..	..	1	..	..	..
Vacancy	..	..	..	..	..	..
Total	**99**	**81**	**82**	**47**	**55**	**35**

(*a*) Formerly the National Alliance Party. (*b*) Upper House abolished in 1922.

For corresponding particulars for the Commonwealth Parliament, *see* page 71.

Number and salaries and allowances of members of the legislatures, Commonwealth parliaments, August 1977

COMMONWEALTH PARLIAMENTS: MEMBERS AND ANNUAL SALARIES AND ALLOWANCES, AUGUST 1977

Members in—	*Cwlth.*	*N.S.W.*	*Vic.*	*Qld.*	*S.A.*	*W.A.*	*Tas.*	*Total*
NUMBER OF MEMBERS								
Upper House	64	60	40	(*a*)	21	32	19	236
Lower House	127	99	81	82	47	55	35	526
Total	**191**	**159**	**121**	**82**	**68**	**87**	**54**	**762**
ANNUAL SALARY ($)								
Upper House	24,369	9,540	23,869	(*a*)	19,770	20,106	20,625	..
Lower House	24,369	20,660	23,869	24,190	19,770	20,106	20,625	..
ELECTORAL ALLOWANCES ($)								
Upper House	(*b*)6,000	(*c*)3,540	(*d*)5,225–7,036	(*a*)	4,730	(*d*)5,500–10,500	(*d*)2,269–5,363	..
Lower House	(*b*)6,000–7,500(*e*)	(*d*)6,300–9,900	(*d*)5,225–7,036	(*d*)4,010–9,780	(*d*)2,960–6,800	(*d*)4,800–9,800	(*d*)3,094–7,219	..

(*a*) Abolished in 1922. (*b*) Certain additional allowances are also provided for holders of parliamentary offices etc. (*c*) Referred to as an expense allowance. An additional $42 per sitting day is payable to members who live outside the metropolitan area. (*d*) Allowance payable depends on location of electorate and, for Victoria and Tasmania, size of electorate. A special expense allowance for members in N.S.W., ranging from $2,275 to $2,840, is paid to members representing country electorates. (*e*) A member of the House of Representatives representing an electorate of less than 5,000 square kilometres or a population of less than 120,000 persons receives an electorate allowance at the rate of $6000 p.a.; a member representing an electorate of 5000 square kilometres or more or a population of 120,000 persons or more receives an electorate allowance at the rate of $7,500 p.a.

Outlay on parliamentary government

The table below shows, in broad groups, the expenditure incurred in the operation of the parliamentary system in Australia, comprising the Governor-General and Governors, the Ministries, the Upper and Lower Houses of Parliament, and electoral activities; *it does not attempt to cover the expenditure on Commonwealth and State administration generally*. Only broad groups are shown, but even these are not entirely comparable because of differences in accounting procedures and in the presentation of accounts. Expenditure under the head of Governor-General or Governor includes salaries of Government House staffs and maintenance of residences, official establishments, grounds, etc., and expenditure on capital works and services.

OUTLAY ON PARLIAMENTARY GOVERNMENT, 1975-76
($'000)

Expenditure group	*Cwlth.*	*N.S.W.*	*Vic.*	*Qld.*	*S.A.*	*W.A.*	*Tas.*	*Total*
Governor-General or Governor(*a*)	1,516	657	646	465	323	509	384	4,501
Ministry(*b*)	1,294	868	886	635	407	482	571	5,143
Parliament—								
Upper House(*c*)	1,881	796	980	. .	443	651	394	5,144
Lower House(*c*)	3,814	2,383	2,350	2,088	946	1,049	611	13,240
Both Houses(*d*)	19,182	5,269	4,762	3,597	2,104	2,445	769	38,127
Miscellaneous(*e*)	8,564	908	597	531	268	359	93	11,321
Total, Parliament . .	*33,440*	*9,355*	*8,690*	*6,215*	*3,761*	*4,504*	*1,867*	*67,833*
Electoral(*f*)	15,025	1,627	1,573	524	627	351	176	19,904
Royal Commissions, Select Committees, etc.	2,404	55	747	. .	89	487	33	3,815
Grand Total . . .	**53,680**	**12,562**	**12,541**	**7,839**	**5,207**	**6,333**	**3,031**	**101,194**

(*a*) Salaries and other expenses, including maintenance of house and grounds. (*b*) Salaries, travelling and other expenses as ministers. (*c*) Allowances to members (including ministers' salaries as members), travelling and other expenses. (*d*) Government contribution to members' superannuation funds, printing, reporting staff, library, etc. (*e*) Services, furniture, stores, etc. (*f*) Salaries, cost of elections, etc.

OUTLAY ON PARLIAMENTARY GOVERNMENT

Year	*Cwlth.*	*N.S.W.*	*Vic.*	*Qld.*	*S.A.*	*W.A.*	*Tas.*	*Total*
				TOTAL ($'000)				
1971–72 .	18,432	4,520	3,475	2,717	2,436	2,486	1,327	35,393
1972–73 .	23,515	5,310	4,490	3,182	2,677	2,516	1,316	43,006
1973–74 .	38,926	7,378	5,218	4,340	3,190	4,213	1,935	65,200
1974–75 .	44,113	8,047	7,194	6,332	3,895	4,865	2,461	76,907
1975–76 .	53,680	12,562	12,541	7,839	5,207	6,333	3,031	101,194
				PER HEAD OF POPULATION ($)				
1971–72 .	1.41	0.96	0.97	1.29	2.04	2.35	3.38	2.71
1972–73 .	1.77	1.11	1.24	1.64	2.21	2.33	3.33	3.24
1973–74 .	2.89	1.53	1.43	2.16	2.60	3.82	4.86	4.83
1974–75 .	3.22	1.65	1.94	3.07	3.12	4.29	6.11	5.62
1975–76 .	3.88	2.57	3.36	3.74	4.14	5.47	7.47	7.31

Commonwealth Government Departments

For current detailed information on the Acts administered, the functions and the organisation of the Departments and Agencies of the Commonwealth Government *see* the *Commonwealth Government Directory* (latest issue 1977).

Enactments of the Parliaments

In the Commonwealth Parliament all laws are enacted in the name of the Sovereign, the Senate, and the House of Representatives. The subjects with respect to which the Commonwealth Parliament is empowered to make laws are enumerated in the Constitution. In the States other than South Australia and Tasmania, laws are enacted in the name of the Sovereign by and with the consent of the Legislative Council (except in Queensland) and Legislative Assembly. In South Australia and Tasmania laws are enacted in the name of the Governor of the State, with the advice and consent of the Parliament in the case of South Australia, and of the Legislative Council and House of Assembly in the case of Tasmania. Generally, assent to Bills passed by the legislatures is given by the Governor-General or State Governor acting on behalf of, and in the name of, the Sovereign. In certain special cases Bills are reserved for the Royal assent. The Parliaments of the States are empowered generally, subject to the Commonwealth Constitution, to make laws in and for their respective States in all cases whatsoever. Subject to certain limitations they may alter, repeal, or vary their Constitutions. Where a law of a State is inconsistent with a law of the Commonwealth Parliament the latter prevails and the former is, to the extent of the inconsistency, invalid.

The course of Commonwealth Parliament legislation

The actual legislation by the Commonwealth Parliament during 1975 is indicated in alphabetical order in *The Acts of the Parliament of the Commonwealth of Australia passed during the year 1975 in the Second Session of the Twenty-ninth Parliament of the Commonwealth, with Appendix, Tables and Index*. A chronological table of Acts passed from 1901 to 1973 showing how they are affected by subsequent legislation or lapse of time is also available; this volume also contains a table of legislation of the Commonwealth Parliament passed from 1901 to 1973 in relation to the several provisions of the Constitution. Reference should be made to these for complete information.

The following figures indicate the variation over the years in the number of enactments of the Commonwealth Parliament since 1901: 17 Acts were passed in 1901, 36 in 1914, 38 in 1927, 87 in 1939, 109 in 1952, 156 in 1965, 157 in 1968, 223 in 1973, 166 in 1974, and 121 in 1975.

CHAPTER 4

DEFENCE

This chapter outlines Australia's defence policy and its defence relationships with other countries; the reorganized higher Defence organization; the functions, organization, manning and training of the three Services; the functions and activities of the Natural Disasters Organization and the Defence Science and Technology Organization; and the functions of Defence production and purchasing.

Further information on Australia's strategic environment and defence policies and programming is contained in the Government's White Paper on Australian Defence tabled in Parliament on 4 November 1976 and in a supplementary statement made to the House of Representatives by the Minister for Defence on 22 September 1977. Further factual information on the programs and activities of the Department and the Defence Force is contained in past Defence Reports and other publications issued by the Department of Defence.

Current defence policy

The primary aim of Australian defence policy is to ensure the security of Australia and its Territories. While Australia's strategic prospects are judged on balance to be favourable, there are uncertainties which must be insured against. Defence policy is to maintain the ability to deploy a balanced force to cope with a range of lesser situations, or to expand in time should the need arise to meet a serious emergency.

The Australian alliance with the United States under ANZUS gives substantial grounds for confidence that, in the event of a fundamental threat to Australia's security, US military support would be given. However, even though her security may be ultimately dependent upon US support, Australia owes it to herself to be able to mount a national defence effort that would maximise the risks and costs to any aggressor.

Short of this major and improbable situation, Australia could face a range of other situations that she should expect to handle more independently. The requirements and the scope for Australian Defence activity are today confined basically to areas close to home areas in which military deployments by a power potentially unfriendly to Australia could permit that power to attack or harass Australia itself or Australian territories, or the maritime resources zone and the nearer lines of communication.

The promotion of increased self-reliance derives essentially from our own national interests and responsibilities. It also accords with Australia's status as an ally of the United States: by accepting local responsibilities, Australia can contribute to the alliance relationship and to the US global effort.

Australia remains deeply mindful of her natural associations with the liberal democracies and with the Western strategic community. Additionally, Australia maintains her concern for the security and development of South-East Asia, and continues to place a high value on her defence links in the region. Australia continues to honour the terms of the Five Power arrangements which embrace Malaysia, New Zealand, Singapore and the United Kingdom as well as Australia.

Higher Defence organization

Legislation to give effect to the re-organization of the higher management of the Defence Force and the Department of Defence was passed by the Commonwealth Parliament in September 1975. The legislation, which came into effect on 9 February 1976, specifically recognises that responsibility for the general control and administration of the Defence Force rests with the Minister for Defence.

The Chief of Defence Force Staff exercises command of the Defence Force through the three Service Chiefs of Staff (Navy, Army and Air) who are the professional heads and have responsibility for the management of their respective arms of the Defence Force. The Chief of Defence Force Staff is the principal military adviser to the Minister.

The Secretary, Department of Defence has the powers and functions generally prescribed for such appointments in the Australian Public Service Act, but these are qualified by the statutory authority of the Chief of Defence Force Staff and by Ministerial directives to the Secretary, enjoining responsiveness of the Public Service structure to the operational priorities of the Chiefs of Staff. The Secretary is responsible to the Minister for advice on general policy and on the management and utilisation of defence resources. Central Administration is divided functionally into areas concerned with strategic policy and force development, supply and support, resources and financial programming, manpower, science and technology, and management services.

The Chief of Defence Force Staff and the Secretary, Department of Defence advise the Minister on matters involving their joint responsibility in respect of administration of the Defence Force. The three Service Chiefs of Staff, the Chief of Defence Force Staff and the Secretary, Department of Defence all have the right of access to the Minister.

Higher Defence machinery

The *Council of Defence* considers and discusses matters referred to it by the Minister relating to the control and administration of the Defence Force and the respective Arms of the Defence Force. The Council is chaired by the Minister for Defence. Membership includes the Minister assisting the Minister for Defence, the Chief of Defence Force Staff, the Chiefs of Staff and the Secretary of the Department of Defence.

An extensive committee system exists to reconcile the respective Armed Services' operational requirements with Defence objectives, and to facilitate the professional management of military careers, the sound management of resources and the development of general policy. It also brings together the expertise of both military and civilian members in the internal policy formulating process and the proffering of advice to Government. Three of the more important committees are described below:

The *Defence Committee* is chaired by the Secretary and has as members the Chief of Defence Force Staff, the three Chiefs of Staff, and the Secretaries of the Departments of the Prime Minister and Cabinet, Finance and Foreign Affairs. It advises the Minister on general Defence policies calling for co-ordinated information and advice about strategic, military, foreign affairs and economic aspects.

The *Chiefs of Staff Committee* is chaired by the Chief of Defence Force Staff and is responsible for providing the Minister with collective professional advice on military operations, military implications of Defence policy; endorsement of military plans; and other related subjects.

The *Defence Force Development Committee* is chaired by the Secretary and has as members the Chief of Defence Force Staff and the three Chiefs of Staff. It is primarily concerned with the formulation of the Five Year Defence Program and with advising the Minister on related matters encompassed by it.

EXPENDITURE ON THE DEFENCE FUNCTION
($'000)

	Actual Expenditure				*Estimated Expenditure*
Departmental Category	1973–74	1974–75	1975–76	1976–77	1977–78
Department of Defence					
Capital equipment	93,486	90,050	151,589	281,200	323,394
Defence facilities	52,689	121,846	112,437	116,837	119,989
Defence co-operation	10,334	88,647	38,951	25,369	25,925
Manpower including Defence Forces Retirement and Death Benefits	834,662	1,008,998	1,111,915	1,222,739	1,296,301
Other running costs	328,417	366,588	437,665	504,031	553,723
Total (*a*)	**1,319,588**	**1,676,129**	**1,852,557**	**2,150,176**	**2,319,332**
Department of Productivity and other Departments					
Capital equipment	8,909	12,246	10,520	7,762	5,795
Defence facilities	3,790	5,574	7,469	9,234	9,615
Manpower costs	19,385	21,583	8,327	9,317	9,512
Other running costs	55,361	75,116	64,384	79,841	88,074
Total (*b*)	**87,445**	**114,519**	**90,700**	**106,154**	**112,996**
Total	**1,407,033**	**1,790,648**	**1,943,257**	**2,256,330**	**2,432,328**

(*a*) The Research and Development activity, formerly with the Department of Industry and Commerce, integrated with the Defence Science and Technology Division of the Department of Defence during 1974–1975. (*b*) Historic data up to and including 1974–75 has not been adjusted for the reclassification of Department of Productivity expenditure attributable to the Defence Functions.

Equipment for the Defence Force

An amount of $289.0 million was spent on equipment of a capital nature in 1976–77. An amount of $329.2 million is expected to be spent in 1977–78.

The major equipment items received by the Services in 1976–77 included 1 Oberon-class submarine, 1 training ship, 16 S2G Tracker Aircraft, 216 CRHII radio receivers, 47 Leopard Tanks, 6 light observation helicopters, 9 sets of medium girder bridges, 2 surveillance radars and 19 aircraft fire fighting trucks.

Major new equipment items planned for delivery in 1977 78 include 1 Oberon-class submarine, 6 replacement ESM systems for destroyer escorts, 10 Nomad aircraft, 34 Leopard Tanks, 30 fire support vehicles, 400 light trucks, 6 P3C LRMP aircraft and 2 C130H aircraft.

New major capital equipment decisions announced in the context of the 1977–78 Budget include a new multi-purpose secure communications network, construction of an underway replenishment ship to replace HMAS *Supply*, modernisation of the Destroyer Escorts *Swan* and *Torrens*, purchase of 200 additional light general service trucks, acquisition of 2 specialised Armoured Recovery and Maintenance Tanks, limited purchase of electronic warfare equipment, purchase for evaluation of medium truck vehicles, purchase of 5 high-power, high-frequency radio terminals and 24 medium-power low-capacity, high-frequency radio terminals, and structural and equipment refurbishment of the Macchi jet trainers.

Defence manpower

Employment

The following table indicates the range of activities and occupations in which Defence manpower was engaged as at 30 June 1977, and the interdependence between the military and civilian components:

FUNCTIONAL DISTRIBUTION OF DEFENCE MANPOWER AS AT 30 JUNE 1977

	Service	*Civilian*	*Total*
Combat forces and direct logistic support to combat forces	29,700	850	30,550
Specialist support (e.g. medical services, communications)	6,150	1,000	6,800
Stores and supply	3,150	5,050	8,200
Workshop and repair facilities, and quality assurance inspection	3,000	2,200	5,200
Naval dockyards—			
construction and refit program	150	5,600	5,750
Training staff, direct support and servicemen in training	18,400	1,700	20,100
Research and development	400	5,400	5,800
Central and departmental functions and specialist administrative services	2,100	3,900	6,000
Defence regional offices, service command and district HQs and administrative units	7,000	4,600	11,950
Total	**70,050**	**30,300**	**100,350**

Figures have been rounded. Civilian figures refer only to full-time operatives and exclude 1,300 locally engaged civilians in support of Air Force deployments overseas, 800 persons on extended leave, and 400 part-time staff.

Permanent Defence Force

PERSONNEL STRENGTHS OF THE PERMANENT DEFENCE FORCE

	Volunteer Forces				*National Servicemen*
Strengths as at end June	*Navy*	*Army*	*Air Force*	*Total*	*Army*
1973	17,215	31,151	22,717	71,083	2,839
1974	16,141	30,197	21,119	67,457	38
1975	16,094	31,514	21,546	69,154	. .
1976	15,993	31,430	21,351	68,774	. .
1977	16,390	31,988	21,703	70,081	. .
1978 (estimated)	16,380	31,910	21,751	70,041	. .

NOTE. Defence Force manpower statistics for earlier years are shown in Year Book No. 61, page 100.

COMPOSITION OF PERMANENT DEFENCE FORCE(*a*)
as at 30 June 1977

	Navy	*Army*	*Air*	*Total*
Male—				
Officers	1,857	4,101	3,426	9,384
Other ranks	12,324	25,068	16,277	53,669
Cadets	348	468	339	1,155
Apprentices	388	787	340	1,515
Junior recruits	568	. .	. .	568
Total	15,485	30,424	20,382	66,291
Female (b)—				
Officers	66	171	142	379
Other ranks(*c*)	839	1,393	1,179	3,411
Total	905	1,564	1,321	3,790
Total Strength	**16,390**	**31,988**	**21,703**	**70,081**

(*a*) Citizen Forces and reserves on full time duty are included in the appropriate category. (*b*) Females serve in the Women's Royal Australian Naval Service, the Royal Australian Naval Nursing Service, the Naval Police, the Women's Royal Australian Army Corps, the Royal Australian Army Nursing Corps and other Army specialist corps. The Women's Royal Australian Air Force and the RAAF Nursing Service were disbanded on 1 May 1977 when all female personnel were incorporated into the Permanent Air Force. (*c*) Includes female officer cadets.

Reserve Forces

The Reserve Forces of the Navy, Army and Air Force are available to supplement the Permanent Defence Force.

Each Reserve Force consists of several reserve elements with different call out provisions and training obligations. The most important elements involve a training obligation and are as follows:

Citizen Forces (Royal Australian Naval Reserve, Active Citizen Military Forces, Active Citizen Air Force) which may be called out by proclamation for continuous full-time service in a time of defence emergency or war.

Emergency Reserves (Naval Emergency Reserve Forces, Regular Army Emergency Reserve, Air Force Emergency Reserve) which may be called out by the Governor-General for continuous full-time service as the need arises.

PERSONNEL STRENGTHS OF THE RESERVE FORCES(*a*)

Strengths as at end June	*Navy*	*Army*(*b*)	*Air Force*	*Total*
1973	1,935	23,119	1,191	26,245
1974	1,593	20,000	748	22,341
1975	1,302	20,374	554	22,230
1976	1,025	21,183	458	22,666
1977	970	21,641	473	23,084
1978 (estimated)	1,025	21,680	525	23,230

(*a*) Strengths refer to Reserves with training obligations. They exclude those members who are serving full time in the Permanent Defence Force but include all other listed Reserve members including some who have not fulfilled their minimum training obligations. (*b*) Includes National Service obligatees who numbered about 3649 at June 1973.

Defence co-operation

In support of Australia's Defence policy, the Government conducts defence co-operation activities with South-East Asian and South Pacific countries. These activities include joint projects, training in Australia, loan of personnel and combined military exercises.

In 1976–77, expenditure on Defence co-operation with Papua New Guinea totalled $14.0 million. This included the loan of Australian servicemen to P.N.G., training for P.N.G. servicemen in Australia, survey and engineering projects in P.N.G. and the provision of certain items of equipment.

Expenditure on the Defence Co-operation Program with Indonesia to June 1977 amounted to $27.3 million. Major current projects include the survey and mapping of Irian Jaya, a field communications project, assistance with Sabre aircraft previously transferred to Indonesia by Australia, research and development projects, and a maritime patrol project (involving patrol boats and Nomad aircraft).

Annual expenditure on Defence co-operation with Malaysia and Singapore is now running at approximately $4 million and $0.8 million respectively. Major continuing projects in Malaysia include an Armed Forces manufacturing workshop, a parachute and diving school and a defence research centre. Assistance to Singapore is mainly in the area of training, particularly of qualified flying instructors. Training assistance is also provided to Thailand and the Philippines.

Assistance to South-West Pacific countries is mainly in the form of training in Australia and the provision of technical advisers.

Training in Service training establishments in Australia is an important part of Defence co-operation activities. Over 600 overseas personnel are trained in Australia each year by the three Services.

Defence representation overseas

Defence Attache representation is maintained in Afghanistan, Britain, Burma, Canada, France, India, Indonesia, Iran, Japan, Korea, Malaysia, Nepal, New Zealand, Pakistan, Papua New Guinea, the Philippines, Singapore, Thailand and the United States of America.

Defence Force activities overseas

The main areas in which Australian Defence Force elements have been deployed overseas during the year are Malaysia Singapore and Papua New Guinea. Units have also visited Indonesia, the Philippines, Thailand, India, Japan, New Zealand, Britain, Canada and the United States.

In support of the Five Power Arrangements, Australian Defence Force elements in the Malaysia/Singapore area include:

Navy—One destroyer or destroyer escort present in the area at all times, and one submarine present for part of the year;

Army—An Australian Army infantry company is maintained in a training role at Butterworth on a basis of three month detachments from Australia;

Air Force—Two squadrons of Mirage fighter aircraft are maintained at Butterworth in Malaysia, with a detachment at Tengah in Singapore.

The Defence Force contributes to United Nations peacekeeping activites in the Middle East (Egypt, Israel and Syria) and in Kashmir through the provision of military observers and air transport facilities.

THE DEFENCE FORCE

Royal Australian Navy

The R.A.N. maintains and exercises a modern, well-equipped and highly-trained maritime force. The structure of this force is based primarily on the provision at sea of a balanced naval task group consisting of surface warships, naval aviation, and the R.A.N.'s submarine force.

Development of the Royal Australian Navy

Information relating to naval defence systems prior to 1901 appears in Year Book No. 2, page 1094; further information relating to the development of Australian naval policy appears in Year Books No. 3 and 12, pages 1060 and 1012 respectively; an account of the building of the Australian Navy, its cost, the compact with the Imperial Government, and other details appear in Year Book No. 15, pages 921–3; and the growth and the activities of the R.A.N. during the 1939–45 war are described in Year Book No. 36, pages 1023–7.

Higher organisation

Under the Defence Act the Chief of Naval Staff has command of the R.A.N., subject to the overall command of the Defence Force by the Chief of Defence Force Staff. Principal staff officers to the Chief of Naval Staff are the Deputy Chief of the Naval Staff, and the Chiefs of Personnel, Technical Services, and Materiel. Other senior officers of the R.A.N. include the Flag Officer Commanding the Australian Fleet and the Flag Officer Commanding East Australia area.

Ships of the Royal Australian Navy

The Fleet, October 1977: *Melbourne*-aircraft carrier; *Supply* oiler; *Stalwart* destroyer tender; *Perth*, *Hobart*, *Brisbane* guided missile destroyers; *Vendetta*, *Vampire* destroyers; *Yarra*, *Parramatta*, *Stuart*, *Derwent*, *Swan*, *Torrens* destroyer escorts; *Jervis Bay* training ship; *Curlew*, *Snipe*-coastal minehunters; *Ibis* coastal minesweeper; *Moresby*, *Flinders* Surveying ships; *Diamantina*, *Kimbla*-oceanographic research ships; *Otway*, *Onslow*, *Ovens*, *Oxley*, *Orion*–submarines; *Attack*, *Acute*, *Advance*, *Adroit*, *Ardent*, *Assail*, *Aware*, *Barbette*, *Barricade*, *Bayonet*, *Bombard*, *Buccaneer* patrol boats; *Banks*, *Bass*–general purpose vessels; *Brunei*, *Labuan*, *Tarakan*, *Wewak*, *Betano*, *Balikpapan*–heavy landing craft.

Fleet Air Arm

The Fleet Air Arm maintains three front line squadrons for embarkation in the operational carrier H.M.A.S. *Melbourne*. These squadrons currently consist of Skyhawk A4G fighter ground-attack aircraft, Tracker S2G anti-submarine aircraft and Sea King Mk 50 anti-submarine helicopters. Three training and support squadrons are based at the R.A.N. Air Station, Nowra, New South Wales. Other aircraft operated by the Navy are the Bell 206B helicopter in the survey ship HMAS *Moresby*, Iroquois UH1B and Wessex 31B helicopters (utility tasks and search and rescue), HS-748, S2Es Macchi trainer and Jindivik pilotless target aircraft.

Ship construction and repairs

There are two naval dockyards, one at Garden Island, New South Wales, and one at Williamstown, Victoria. The dockyard at Cockatoo Island, which is operated by Vickers Cockatoo Dockyard Pty Ltd by agreement with the Commonwealth Government, carries out considerable naval repair work and has the capability to construct warships.

Current construction projects include 1 Oberon Class submarine in the United Kingdom (due to be commissioned in early 1978), 2 guided missile frigates in the United States of America and an oceanographic vessel being built at Williamstown. Modernisation of three River Class destroyers escorts, *Parramatta*, *Stuart* and *Derwent*, is progressing and the half-life refit of a fourth, *Yarra*, is scheduled for completion in late 1977.

Extensive improvements to the weapons control system of the guided missile destroyers *Hobart*, *Perth* and *Brisbane* are progressing at Garden Island Dockyard.

Training and Entry

Officer Entry. The Royal Australian Naval College, *H.M.A.S. Creswell* at Jervis Bay, A.C.T. is the training centre for officers in the R.A.N. Junior entry is accepted between the ages of fifteen and seventeen and senior matriculation entry to a maximum of twenty years. The majority of entrants undertake University Degrees in Engineering, Science and Arts through the University of New South Wales. Short Service Commissions of seven years are also granted on completion of training as seamen, supply officers or aircrew officers to suitable applicants who have completed secondary schooling and are aged between seventeen and twenty-four.

Sailor Entry. There are a number of entry schemes available, depending upon an individual's age, educational standard and own particular interests.

H.M.A.S. Nirimba at Quaker's Hill, New South Wales is the naval school for apprentices. Boys aged between fifteen and seventeen-and-a-half receive training in the electrical and engineering trades.

H.M.A.S. Leeuwin at Fremantle, Western Australia is the junior recruit training establishment for boys aged between fifteen-and-three-quarters and sixteen-and-a-half.

H.M.A.S. Cerberus at Westernport, Victoria is the main training establishment for adult entry sailors aged between seventeen and twenty-six. Recruits receive twelve weeks basic training before advancing to specialist training courses.

On completion of initial training further branch and category training is undertaken at the various schools at *H.M.A.S. Penguin*, *H.M.A.S. Watson* and *H.M.A.S. Nirimba* in Sydney, *H.M.A.S. Cerberus* at the Naval Air Station at Nowra, New South Wales. A number of specialised training courses are conducted in the United Kingdom and the United States.

Australian Army

The Australian Army maintains a potential ability and readiness to conduct operations on land for the defence of Australia and, in co-operation with the other arms of the Australian Defence Force shares a responsibility to deter aggression, to ensure the nation's security and to preserve its national interests.

Development of the Australian Army

A detailed account of the Australian Defence Force prior to Federation appears in Year Book No. 2, pages 1075–81. *See* also Year Book No. 12, page 999. For particulars of the phases which cover the period from Federation to the re-establishment of the Military Board and the organisation of Commands after the 1939–45 War, *see* Year Book No. 46 and earlier issues.

Higher organisation

Command of the Army is the responsibility of the Chief of the General Staff, subject to the overall Command of the Defence Force by the Chief of Defence Force Staff. He has for his principal staff officers the Deputy Chief of the General Staff, the Chief of Operations, the Chief of Personnel, the Chief of Materiel, the Chief of the Army Reserve and the Inspector General of the Army Reserve.

The Army is organised into three Commands as follows:

Field Force Command which commands all field force units of the Australian Army, both Regular and Citizen Military Forces.

Logistic Command which commands the principal logistic elements of the Army.

Training Command which is responsible for all individual training and commands all Army training establishments and schools with the exception of the Royal Military College, Duntroon (which is under the command of the Chief of the General Staff).

Military Districts as listed below provide administrative support for the three commands:

1st Military District—the State of Queensland.
2nd Military District—the State of New South Wales, less those parts included in 3rd and 4th Military Districts.
3rd Military District—the State of Victoria and part of southern New South Wales.
4th Military District—the State of South Australia, plus a portion of south-western New South Wales.
5th Military District—the State of Western Australia.
6th Military District—the State of Tasmania.
7th Military District—the Northern Territory.

The military district headquarters also handle those matters in which both Commonwealth and State Governments are involved.

Training

Australian Staff College. The Australian Staff College is located at Queenscliff, Victoria. The course is held annually and is of twelve months duration. The normal intake is eighty students. The course is intended to train selected officers for appointments in all branches of the staff in peace and war and to prepare them to assume, after experience, command and higher staff appointments.

Royal Military College. The Royal Military College was established in 1911 at Duntroon in the Australian Capital Territory to provide trained officers for the Army. The conditions of entry are laid down in the Royal Military College Regulations. The course is four years of military and academic studies. On graduation, cadets are appointed lieutenant in the Australian Regular Army.

Officer Cadet School. The Officer Cadet School was established in 1951 at Portsea, Victoria, to increase the rate at which junior regimental officers could be produced for the Australian Army. Serving members of the Regular Army, the Citizen Military Forces and civilians between the ages of eighteen-and-a-half and twenty-two-and-a-half are eligible for entry. A special entry provides for candidates up to twenty-four-and-a-half years. The course lasts for forty-four weeks and, on graduation, cadets are appointed second lieutenants in the Australian Regular Army.

Women's Royal Australian Army Corps School. The WRAAC School at Mosman, New South Wales, has three wings: one for the training of officer cadets for the WRAAC; one for the training of junior non-commissioned officers; and one which is a basic training wing. The officer cadets are selected from serving members between nineteen-and-a-half and thirty-two years of age, or from civilians between nineteen-and-a-half and thirty years of age. The course is of twenty-three weeks duration and, on graduation, cadets are appointed lieutenants in the Women's Royal Australian Army Corps.

Land Warfare Centre. The Land Warfare Centre was renamed in 1975, having previously been called the Jungle Training Centre, Canungra. The Land Warfare Centre provides training for personnel in tactics and administration, prepares senior non-commissioned officers for commissions and conducts sub-unit and individual training in battle skills.

Army Apprentices School. The Army Apprentices School was opened in 1948 at Balcombe, Victoria, to train youths as skilled tradesmen for the Regular Army and to provide them with a background for an Army career. The course is open to youths between the ages of fifteen and seventeen and provides training in a number of highly skilled trades.

Other Schools. Army schools have been established for the major arms and services to train officers and other ranks in the up-to-date techniques of their own arm of service, to qualify them for promotion and to produce trained instructors. Courses at Army Schools are conducted for members of both the Regular Army and Citizen Military Forces.

Royal Australian Air Force

The function of the Royal Australian Air Force is the conduct of operations in the air for the defence of Australia and Australian interests.

Development of the Royal Australian Air Force

For a short note about the development of the Royal Australian Air Force, *see* Year Book No. 58, page 91.

Higher organisation

The Chief of the Air Staff (C.A.S.) has command of the Royal Australian Air Force subject to the overall command of the Defence Force by the Chief of Defence Force Staff. The C.A.S. is assisted in his decisions by an advisory committee which includes the Deputy Chief of the Air Staff, Chief of Air Force Personnel, Chief of Air Force Materiel, Chief of Air Force Technical Services, Chief of Air Force Operations, Director General Supply—Air Force, Assistant Secretary Resources Planning, and other senior officers or specialists as may be directed by the C.A.S. The Committee has no statutory authority nor executive function and the C.A.S. is not obliged to accept its recommendations.

The Chief of Air Staff administers and controls R.A.A.F. units in Australia through two commands: Operational Command and Support Command. Operational units based at Butterworth, Malaysia, work within the broad directives issued by the C.A.S. They contribute to the development of the Malaysian and Singapore defence capability and provide forces for the Integrated Air Defence System.

Operational Command is responsible to the C.A.S. for the command of operational units and the conduct of their operations within Australia. Support Command is responsible to the C.A.S. for training of personnel, and the supply and maintenance of service equipment.

Structural organisation

The R.A.A.F. has five operational elements, the units of which actively and directly participate in air operations. These elements are the Strike Reconnaissance Force, Tactical Fighter Force, Air Transport Force, Tactical Air Support Force and the Maritime Force. The role of the strike/reconnaissance force is primarily to counter air operations. The tactical fighter force is responsible for air superiority, air defence and air interdiction operations, and also provides close air support to sea and land forces. The air transport force is used for routine logistic and domestic transport, and in addition has a tactical transport role. Tactical transport and close air support aircraft normally operate within a tactical air support force which is usually controlled by a joint (Air Force Army) headquarters. Maritime forces are primarily employed in ocean surveillance, anti-submarine warfare and search and rescue. Major maritime operations are controlled by a joint (Air Force Navy) headquarters.

The support component consists of those units and personnel which support units of the operational component. The elements are Maintenance, Supply, Air Training, Ground Training, Administrative and the Citizen Air Force.

Aircraft

The R.A.A.F.'s strike/reconnaissance force is currently equipped with F111C and Canberra aircraft. The air defence and ground attack squadrons are equipped with the Mirage III-0. Transport aircraft currently in use are Hercules C130A (to be replaced with C130H) and C130E, Caribou, Dakota, Mystere 20, HS748, and BAC1-11. Four squadrons operate Iroquois and Chinook helicopters and the two maritime squadrons operate Neptune SP2H (to be replaced with Orion P3C) and Orion P3B aircraft. Aircraft used for basic training are the CT4 Airtrainer, Macchi and HS748.

Training

Staff College. The R.A.A.F. Staff College located at Fairbairn, A.C.T. provides staff training and higher Service education to selected officers normally of the rank of Squadron Leader and above. The course, which is of one year's duration, is designed to broaden the students' professional background and to prepare them for command and staff appointments of greater responsibility. A two year correspondence course covering communication skills, military studies, international affairs and management is a compulsory prerequisite for entry to this course.

R.A.A.F. Academy. The R.A.A.F. Academy is an affiliated college of the University of Melbourne. Cadets are selected principally for the General Duties Branch and, after four years tertiary training, graduate with a Bachelor of Science degree and the award of a Graduate Diploma in Military Aviation. Cadets selected for the Engineer Branch study the first year at the Academy and then attend the University of Sydney to graduate with a Bachelor of Aeronautical Engineering degree.

Engineering Cadet Squadron. The Engineering Cadet scheme provides training for degree or diploma status in aeronautical, mechanical, electrical and communication engineering at the Royal Melbourne Institute of Technology and similar institutes in the Melbourne area.

Equipment Cadets. Cadets selected for Equipment Branch duties are stationed at No. 7 Stores Depot Toowoomba, Queensland and undertake a three year course at the Darling Downs Institute of Advanced Education. They graduate with a Bachelor of Business Studies degree.

Officer Training. With the exception of those officers commissioned from the R.A.A.F. Academy or the flying training schools, all officers entering directly (with or without a tertiary qualification), commissioned airmen and airwomen, engineering and equipment cadets and undergraduate students undergo the Officers' Initial Training Course at the Officers' Training School, Point Cook, Victoria.

Basic Aircrew Training. R.A.A.F. pilot, navigator and air electronic officer trainees are selected primarily direct from civilian life, although some places are filled by serving officers (including graduates of the R.A.A.F. Academy) and airmen. Direct entry and serving airmen trainees are commissioned on graduation, having completed their officer training concurrently with their flying training. Additionally, the R.A.A.F. provides initial pilot training for the Army and complete pilot and observer training for the R.A.N.

Aircrew Operational Conversion. Conversion training to Mirage fighter aircraft and Orion Maritime aircraft is conducted by the respective conversion training squadrons.

Ground Training. Training for non-aircrew personnel is generally provided in two stages: basic training, which includes apprentice training, brings the airman to a level of proficiency in his particular trade such that he can be recognised and employed as a qualified tradesman on an operating unit; and advanced training covers higher level training courses including supervision and management techniques, and specialist courses on particular aircraft or telecommunications systems.

Major Ground Training Schools. The major ground training schools are the School of Radio at Laverton, Victoria and the School of Technical Training at Wagga, New South Wales. Both schools provide apprentice and adult training.

Natural Disasters Organization

The Natural Disasters Organization (NDO) was created in the Department of Defence in 1974 absorbing all functions of the former Directorate of Civil Defence (which had been in the Department of the Interior until moved to Defence in December 1972).

The NDO and the State and Territory Emergency Service organizations constitute the core civil defence structure for Australia. The main pre-occupation in peacetime is in mitigating the effects of natural disasters, but the primary role is to ensure that the total structure maintains and improves the capability for meeting both the civil defence and natural disasters requirements. The State Governments have complete responsibility for their own organizations. The headquarters of the NDO at Canberra provide a focal point for the co-ordination of national effort during natural disasters and civil defence emergencies. In such emergencies, the headquarters ensure that States and Territories receive the full material and physical support of the Commonwealth Government.

The NDO administers a number of programs from Commonwealth funds, mainly for the support of the Emergency Service organizations: the supply of emergency type equipment (radios, rescue vehicles, first aid kits, generators, flood rescue boats, etc.); reimbursement of salaries of State professional organizers at regional level; provision of training films and handbooks; and subsidies on a dollar-for-dollar basis to provide accommodation for the State units at local government level. Other programs benefit both organizations with a counter disaster involvment and the community at large. Such programs include training courses at the Australian Counter Disaster College at Mt Macedon; emergency broadcasting facilities; a fall out shelter survey service and a public information program. NDO is also required to develop and implement contingency plans involving Commonwealth resource, to cope with natural disasters and civil defence needs. A Disaster Earmark Store has been established at the R.A.A.F. Stores Depot, Dubbo, N.S.W. to expedite the supply of certain items to meet initial disaster relief requirements.

Defence Science and Technology

The Defence Science and Technology Organization (DSTO) is engaged in research, analysis, development, trials and evaluation under the policy, administrative and technical control of the Chief Defence Scientist. It consists of a central office and a number of establishments, a small number of people in overseas posts and some in joint activities with other nations. The DSTO contains about 5,300 staff who provide a degree of scientific expertise in most physical sciences and some engineering fields of relevance to defence.

The functions of the DSTO are: defence science policy; scientific advice on all defence matters; conduct of research and development, including development of new equipment which will improve military effectiveness and analysis of weapons systems and equipment; relationship of Australian research and development to international programs; trials and evaluation of proposed and existing equipment.

The DSTO consists of three main functional areas of responsibility: Military Studies and Operational Analysis Division; Policy and Program Planning Division; and DST laboratories.

Military Studies and Operational Analysis Division

The Division formulates the program of analytical studies for tactical, operational and force structure problems to assist the Department and Services. The Central Studies Establishment and Services Analytical Studies Group carry out most of these studies. Scientific Advisers, oversighted by this Division but attached to each Service arm, provide advice on military needs as well as constituting a direct link with the DSTO.

Policy and Program Planning Division

This Division defines principal objectives of the DSTO and advises on scientific and technical aspects of Defence policy including arrangements for international co-operation in scientific and technical activities.

DST Laboratories

Responsibility for the preparation, co-ordination and reviews of the DSTO program rests with the Deputy Chief Defence Scientist. Laboratories primarily concerned with testing and evaluating service equipment are functionally separated into the Services Laboratories and Trials Division.

The DST Laboratories are:

Weapons Research Establishment, S.A. Applied Physics Wing; Weapons Research and Development Wing; Engineering Wing; and Trials Wing.
Materials Research Laboratories, Victoria.
Aeronautical Research Laboratories, Victoria.
Engineering Development Establishment, Victoria.
Royal Australian Navy Research Laboratory, N.S.W.
Royal Australian Navy Trials and Assessing Unit, N.S.W.
Armed Forces Food Science Establishment, Tasmania.
Joint Tropical Trials and Research Establishment, Queensland.

DEFENCE PRODUCTION

The production establishments became one of the defence responsibilities of the Department of Productivity following its creation on 8 November 1976. They had previously been the responsibility of the Department of Industry and Commerce (see Year Book No. 61, page 109).

Defence production functions of Department of Productivity

The defence production functions of the Department of Productivity are carried out under the *Supply and Development Act* 1939 and include the following:

Planning, establishment, operation and management of facilities producing aircraft, guided missiles, small arms, ammunition, explosives, marine engines, clothing and other defence goods. Acquisition, maintenance, and disposal of strategic materials, investigation and development of Australian sources of supply of defence materiel in conjunction with Department of Defence.

For the performance of the above functions the Department has two production divisions—Munitions Supply and Aircraft, Guided Weapons and Electronics Supply—supported by Production Planning Branch, Marketing Branch and elements of Central Office and Regional technical and administrative staffs.

Munitions supply

The Munitions Supply Division is responsible for the production of munitions required by the Defence Force. Production is carried out in Government factories, which may place orders with private industry for components and materials. The factories currently in operation and their main products or services are as follows:

Ammunition Factory, Footscray, Victoria (fuses, primers, cartridge cases and small arms ammunition); Clothing Factory, Victoria (uniforms and clothing); Engine Works, Victoria (servicing of marine and land-based diesel engines); Albion Explosives Factory, Deer

Park, Victoria (high explosives, propellant); Explosives Factory, Maribyrnong, Victoria (propellants, explosives, rocket motors); Mulwala Explosives Factory, New South Wales (propellants and chemicals); Munitions Filling Factory, St Marys, New South Wales (filling of ammunition and explosive munitions); Ordnance Factory, Bendigo, Victoria (heavy guns, mountings, large gears); Ordnance Factory, Maribyrnong, Victoria (guns, projectiles, heavy forgings, rocket motor components); and Small Arms Factory, Lithgow, New South Wales (rifles, machine guns, mortar shells, calibre shells and fuse components).

Aircraft, guided weapons and electronics supply

Production both in Government factories, and in industry, of aircraft, aero-engines, other aircraft components and guided weapons is the responsibility of this Division. Planning of capacity and negotiation (in conjunction with the government purchasing authority) of contractual arrangements concerning aircraft modification, repair and overhaul, and for the supply of spare parts and airborne equipment for the Services, are also functions of the Division.

The following factories are operated by the Division: Government Aircraft Factory at Fishermen's Bend, Victoria together with its Final Assembly Workshops and Test Airfield at Avalon, Victoria and the Aircraft Engineering Workshop at Pooraka, South Australia.

A twin turbo-propellor utility aircraft known as Nomad has been designed and developed by the Government Aircraft Factories (G.A.F.) and the Government has approved production of 120 aircraft. The Jindivik radio-controlled target aircraft and the Turana pilotless target aircraft continued in production. The Ikara anti-submarine weapon system which has been fitted into 9 R.A.N. ships has also been purchased by the British and Brazilian Navies.

Finance

The total outlay during 1976–77 by the Department of Productivity on Defence-orientated activities was $79,683,000. This was in addition to a turnover of $65,578,000 by the Government Factories through their trust accounts.

Personnel

At 30 June 1977, 8,466 personnel were employed on specifically defence-orientated functions (excluding general financial and administrative management support) as follows: administration 483; aircraft production 2,401; munitions production 4,747; miscellaneous production 827; overseas staff 8.

PURCHASING

The Purchasing Division of the Department of Administrative Services arranges for the purchase of supplies and services for the Australian Navy, Army and Air Force, the Department of Defence Central Office, and the Department of Productivity defence production factories and establishments. Purchase of some supplies from overseas sources is arranged and progressed by the Department of Defence through offices located in the United States of America and the United Kingdom with contractual assistance from the Department of Administrative Services.

Upon request, the Purchasing Division also arranges contracts on behalf of other Commonwealth Government departments and authorities. Through the Australian Government Stores and Tender Board, now located within the Division, goods and services in common use by departments are purchased; some stocks of goods are also held for issue to departments as required.

The Division is also responsible for the review, development and co-ordination of Commonwealth purchasing policies, practices and procedures.

Disposal of surplus or unserviceable Commonwealth-owned stores and equipment to the best advantage of the Commonwealth is also carried out by the Purchasing Division.

Purchases by the Purchasing Division in 1976–77 totalled $238 million. This figure includes contracts valued at $55 million arranged during the year by the Australian Government Stores and Tender Board. Total realisation from disposals in 1976–77 was $24 million, of which $21 million came from 180 public auction sales conducted during the year.

CHAPTER 5

INTERNATIONAL RELATIONS

Australia's international relations have developed as a natural outcome of the country's growth from 19th century colonial status to independent nationhood. Initially, Britain and the Commonwealth countries were the chief preoccupations. Later, partly as a consequence of the vital role played in the Pacific by the United States of America in the 1939–45 War and during the Cold War period, close relations were also developed with that country. These links, and links with Western Europe, remain important factors in Australian policy.

Australia strongly supports efforts to increase stability and development in countries adjacent to it in the Asian and Pacific region and in the Indian and Pacific Oceans. Special attention is being given to developing Australia's bilateral relationships with China, Japan, the Association of South-East Asian Nations (ASEAN) and its members and with Papua New Guinea.

Australia also places a high priority on its participation in the resolution of global issues in the Commonwealth of Nations, the United Nations and other multilateral forums.

Relations with the Great Powers

Australia has extensive relations with the United States. The close relationship is a reflection of the common interests, values and outlook of the two countries. This partnership finds expression in the ANZUS Treaty, signed by Australia, New Zealand and the United States in 1951. Numerous other contacts also exist between Australia and the United States, at both government and private levels.

Australia attaches importance to its relationship with the Soviet Union, and is working to develop improved co-operation, particularly in the trade, scientific and cultural fields, in which agreements have been signed between the two countries.

Since the establishment of diplomatic relations with China in 1972, the relationship has steadily taken on increasing substance. Cultural and trade relations have continued to develop and the increased scope for consultation between Governments at embassy level and during visits of senior Government representatives has been valuable.

Australia also gives high priority to developing and strengthening its relations with Japan, both bilaterally and in international forums, on a basis of mutual trust and understanding. The two nations have become increasingly interdependent in economic terms: Japan is Australia's biggest trading partner and Australia is a major export market for Japan.

Relations with Asia and the Pacific

Australia's primary interest and concern in Asia and the Pacific has long been reflected in its active role in regional associations and organisations such as the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) (formerly the Economic Commission for Asia and the Far East), the Colombo Plan, the Asian Development Bank, the South Pacific Forum, the South Pacific Commission, the South Pacific Bureau for Economic Co-operation and in many other commercial and professional bodies, both private and government.

Australia believes that peace and prosperity in Asia and the Pacific largely depend on the ability of countries in the area to co-operate with one another to secure these objectives and on major powers, both local and external, reaching a durable accommodation of interests in which their fears and aspirations and the independence of the smaller or less populous countries of the region will be respected.

Australia welcomes the progress achieved by ASEAN, which it considers a model of successful regional co-operation. Australia has a significant interest in helping to ensure that ASEAN succeeds in its efforts to generate the economic growth and political stability for which it is striving, and strongly supports ASEAN's objective of preventing domination of the region by any major power.

Australia has entered a program of economic co-operation with ASEAN to which it has pledged a total of $A15 million. Australia maintains normal relations with Vietnam and Laos and gives a modest amount of aid to each.

Australia places great value on cordial and close relations with Indonesia. While the two countries have differed over the East Timor question, a deliberate effort has been made to ensure that such differences do not affect the broader relationship.

Australia recognises the importance of the Indian sub-continent and has friendly relations with the countries of that region.

In the Pacific, Australia looks to consolidate and to expand its co-operative activities to promote the stability, welfare, harmony and economic development of the region. Australia was a foundation member of both the South Pacific Commission and of the South Pacific Forum. Matters of common interest are regularly discussed with Australia's Pacific partners.

In important developments in the South Pacific relating to law of the sea and fisheries, Australia is co-operating in efforts by countries of the region to secure the maximum benefits from maritime resources.

Papua New Guinea, Australia's nearest neighbour and former territory, attained independence on 16 September 1975. It continues to be given the highest priority in bilateral relations. Australia has pledged a minimum of $A930 million in aid to Papua New Guinea over the five years beginning in 1976.

Australia maintains very close connections and has a very wide range of common interests with New Zealand. It is intended to develop these.

Relations with Western Europe

Australia attaches importance to its friendly relations with the European Communities (EC) as well as to its bilateral relations with individual EC member countries including Britain, with which it has a close historical relationship, and other West European countries. Membership of the Organisation for Economic Co-operation and Development (OECD) enables Australia to participate actively in consultation on a wide range of issues with countries experiencing similar social and economic circumstances.

Indian Ocean

Australia is concerned that the Indian Ocean should not become a major area of competition between the United States and the Soviet Union. It believes that there should be a balance in super-power capabilities in the region at the lowest practicable level.

Discussions between the United States and the Soviet Union on mutual arms limitation in the Indian Ocean began in June 1976. Australia considers that any arms limitation agreement must be balanced in its effects and consistent with the security interests of the ANZUS partners.

Relations with other countries

Australia recognises the need to develop relations with other parts of the world and has increased its diplomatic representation in Africa, the Caribbean, Eastern Europe, Latin America and the Middle East. Development of relations in these regions reflects several common interests, including the role of middle powers and resources policies.

United Nations

Australia played an active part in drafting the Charter of the United Nations at the Conference on International Organisation in San Francisco in 1945, and has been a consistent supporter of the principles and objectives of the United Nations since its foundation. Besides participating actively each year in the United Nations General Assembly, Australia has served on the Security Council (1946–47, 1956–57 and 1973–74), the Economic and Social Council (1948–50, 1953–55, 1962–64 and 1974–76), the Trusteeship Council (1947–75) and on a number of other commissions and committees as well as on the governing bodies of specialised agencies such as the Food and Agriculture Organisation and the International Civil Aviation Organisation.

Australia has actively supported decolonisation and, besides having been a member of the Trusteeship Council (by virtue of its former administration of Nauru and of New Guinea), is a member of the Special Committee on Decolonisation (the Committee of 24) and of the Council for Namibia.

Australia has been involved in almost all United Nations peacekeeping activities since these began. Australian observers have served in Greece (1947–51), Indonesia (1947–51), the Middle East (1956–), Kashmir (1949–) and Yemen (1962). Australian troops served in Korea (1950–53), and a civilian police contingent, currently 20 strong, has operated in Cyprus since 1964. An RAAF contingent of 47 men and four helicopters is assisting UN peacekeeping forces in the Suez Canal area, and an RAAF Caribou aircraft and crew is serving with the UN Military Observer Group in India and Pakistan (as are 6 military observers). Australia has contributed its assessed share of the costs of all UN operations and has made voluntary contributions to the costs of maintaining the United Nations force in Cyprus as well as providing men and equipment for the forces listed above.

The Commonwealth

Opportunities to work co-operatively exist in many other multilateral forums among which the Commonwealth of Nations is a distinctive and unique framework bringing together around a quarter of the world's population. Australia participates actively in Commonwealth activities and was host to a meeting of senior Commonwealth officials in 1976.

Treaties

The bilateral and multilateral agreements to which Australia is party are printed in the Australian Treaty Series. Details may be obtained from the Department of Foreign Affairs, Canberra, A.C.T. 2600

Australia's official development assistance to less-developed countries

Since 1945, Australia has spent over $3,378 million on aid. In the last decade, official development assistance has trebled from $126 million in 1966–67 to $378 million in 1976–77. In 1977–78 it is expected to reach $425 million, representing an expenditure of about $30 per head of population in Australia.

Australia's aid to less-developed countries was 0.47 per cent of GNP in 1976–77.

The table below shows Australia's official development assistance during the years 1973–74 to 1976–77 and total post-war expenditure to 1976–77.

AUSTRALIA'S OFFICIAL DEVELOPMENT ASSISTANCE TO LESS-DEVELOPED COUNTRIES
($'000)

Scheme	*1973–74*	*1974–75*	*1975–76*	*1976–77*	*Total 1945–46 to 1976–77*
BILATERAL AID—					
AID TO PAPUA NEW GUINEA	177,076	168,835	211,930	226,377	2,123,048
REST OF THE WORLD—					
Projects, Technical Co-operation and Related Activities—					
Colombo Plan and other Bilateral Programs	26,034	45,077	44,843	52,115	429,474
Training—					
Colombo Plan and other Bilateral Programs	8,304	8,685	9,120	10,329	101,314
Commonwealth Co-operation in Education Scheme	1,006	1,137	1,159	1,153	11,785
Australian-Asian University Co-operation Scheme	262	332	518	573	2,349
International Training Institute	..	..	102	168	270
Training Services and Student Welfare	..	747	1,217	1,250	3,214
Bilateral Food Aid	28,819	48,908	31,274	24,743	230,410
Other Bilateral Assistance—					
Assistance to Non-Government Organisations	20	437	540	650	1,764
Preservation and Development of South Pacific Cultures	..	50	50	100	200
Disaster Relief	78	400	50	844	2,956
Emergency Relief	..	..	317	250	567
Refugee Relief	..	149	..	..	3,630
Indus Basin Development Fund	207	2,840	..	..	23,268
Foreign Exchange Operation/Support Fund	982	320	633	..	8,665
Tarbela Dam	..	..	1,000	..	1,000
Loan to Fiji for Suva-Nadi Highway	..	..	615	..	615
Loan to Fiji for Air Pacific	..	658	..	..	658
Special Aid	..	..	81	..	6,391
Miscellaneous Aid	..	..	..	..	174
Total bilateral aid	*242,788*	*278,575*	*303,449*	*318,552*	*2,951,752*
MULTILATERAL AID—					
FINANCIAL INSTITUTIONS—					
International Development Assocsation	6,870	15,314	21,249	21,040	112,603
Asian Development Bank	2,822	10,815	4,976	13,619	58,668
International Bank for Reconstruction and Development	..	588	622	4,604	53,403
Other	..	..	..	..	1,996
Total	9,692	26,717	26,847	39,263	226,670
Less Repayments by ADB	..	..	1,095	..	1,095
Repayments by IBRD	706	706	706	..	2,514
Total Financial Institutions	8,986	26,011	25,046	39,263	223,061

AUSTRALIA'S OFFICIAL DEVELOPMENT ASSISTANCE TO LESS-DEVELOPED COUNTRIES—*continued*

($'000)

Scheme	*1973–74*	*1974–75*	*1975–76*	*1976–77*	*Total 1945–46 to 1976–77*
CONTRIBUTIONS TO UN AGENCIES AND FUNDS—					
United Nations Relief and Rehabilitation Administration(*a*)	..	..	..	..	49,586
United Nations Development Programs(*b*)	1,997	2,525	2,853	3,592	31,249
United Nations International Children's Emergency Fund	632	779	934	1,100	20,944
United Nations International Children's Emergency Fund—Indo-China(*c*)	100	400	..	..	500
World Food Program(*d*)	1,742	2,052	4,174	3,194	19,179
United Nations High Commissioner for Refugees—Indo-China(*e*)	..	3,476	..	..	3,476
United Nations High Commissioner for Refugees	200	258	350	420	3,842
International Refugee Organisation	..	..	..	..	6,594
United Nations Relief and Works Agency	199	234	285	340	5,606
United Nations Environment Fund	689	373	398	459	1,919
United Nations Fund for Population Activities	225	285	322	390	1,322
Food and Agricultural Organisation International Fertilizer Supply Scheme	..	4,449	1,530	500	6,479
Other	191	3,693	328	316	9,902
Total Contributions to UN Agencies and Funds	5,975	18,524	11,174	10,311	160,598
CONTRIBUTIONS TO REGULAR BUDGETS OF MULTILATERAL AGENCIES PARTLY ACTIVE IN DEVELOPMENT(*f*)—					
World Health Organisation	445	543	671	853	7,587
United Nations Organisation	139	177	232	290	2,762
United Nations Educational, Scientific and Cultural Organisation	77	104	124	170	1,419
Food and Agriculture Organisation	53	62	88	117	969
International Labour Organisation	51	55	94	100	892
General Agreement on Tariffs and Trade	23	36	49	61	585
Other	39	74	81	105	913
Total Contributions to Regular Budgets, etc.	827	1,051	1,339	1,696	15,127
CONTRIBUTIONS TO OTHER AGENCIES—					
South Pacific Commission	508	692	784	858	7,489
Agricultural Research Centres	448	1,121	1,718	2,012	5,611
Commonwealth Fund for Technical Co-operation	158	600	700	830	2,485
Regional Education and Training Projects	3	43	578	1,130	1,754
International Planned Parenthood Federation	125	164	180	180	699
South Pacific Bureau of Economic Co-operation	90	85	454	108	764
Association of South-East Asian Nations	..	38	741	1,020	1,799
Economic and Social Commission for Asia and the Pacific	50	83	185	499	946
Other	799	1,156	549	1,835	5,807
Total Contributions to Other Agencies	2,181	3,982	5,889	8,472	27,354
Total multilateral aid	*17,969*	*49,568*	*43,448*	*59,742*	*426,140*
Total official development assistance	**260,757**	**328,143**	**346,897**	**378,294**	**3,377,892**

(*a*) Includes Post-United Nations Relief and Rehabilitation Administration Relief. (*b*) Includes United Nations Special Fund and United Nations Expanded Program of Technical Assistance. (*c*) Included under the vote 'Colombo Plan and Special Aid to Indo-China'. (*d*) Includes amounts provided under Food Aid Convention—International Grains Agreement and International Wheat Agreement. (*e*) Includes amounts provided under 'Colombo Plan and Special Aid to Indo-China' and 'Emergency Relief for Indo-China'. (*f*) The development content is calculated by applying to the contribution to each agency the percentage set out in the Development Assistance Committee Statistical Reporting Directives.

About three-fifths of Australia's aid goes to Papua New Guinea. The remainder is channelled through multilateral programs (e.g. the UN agencies and the Asian Development Bank) and through Australia's bilateral programs. The following table sets out the countries which receive bilateral aid.

AUSTRALIA'S BILATERAL AID BY GEOGRAPHICAL REGION AND COUNTRY(*a*)
($'000)

Country	*1975–76*	*1976–77*
ASIA—		
Afghanistan	204	497
Bangladesh	9,675	9,088
Burma	2,355	2,314
India	8,692	7,299
Indonesia	24,584	22,525
Korea, Republic of	583	717
Laos	2,475	1,369
Lebanon	50	392
Malaysia	4,301	3,551
Nepal	357	512
Pakistan	4,820	4,258
Philippines	6,780	6,073
Singapore	1,091	1,067
Sri Lanka	1,969	2,306
Thailand	4,619	6,069
Timor	250	250
Vietnam	4,308	2,522
Other	2,025	1,036
Total Asia	*79,138*	*71,845*
OCEANIA—		
Fiji	3,424	4,292
Gilbert Islands	95	260
New Hebrides	322	659
Papua New Guinea	211,930	226,377
Solomon Islands	966	1,555
Tonga	406	1,068
Western Samoa	1,889	3,976
Other	714	762
Total Oceania	*219,746*	*238,949*
AFRICA—		
Ethiopia	26	743
Ghana	382	829
Kenya	137	1,404
Lesotho	104	118
Mauritius	700	638
Mozambique	83	991
Nigeria	142	147
Seychelles	6	242
Tanzania	603	1,437
Uganda	117	155
Other	1,828	518
Total Africa	*4,128*	*7,222*
EUROPE—		
Total	*8*	*168*
AMERICA—		
Total	*199*	*222*
UNSPECIFIED—		
Total	*230*	*146*
Total bilateral aid	**303,449**	**318,552**

(*a*) Countries which received more than $100,000 from Australia in 1976–77 are shown separately.

Bilateral aid is channelled through a number of programs through which Australia assists with various developmental projects including the provision of experts and equipment, balance of payments support and training of students.

The following table sets out the numbers of students who have been trained in Australia under the aid programs.

PERSONS FROM LESS-DEVELOPED COUNTRIES FINANCED BY AND TRAINED IN AUSTRALIA
(Number)

Scheme	*Cumulative total at 30 June 1977*	*Total in training at 30 June 1977*	*Number of new awards 1976–77*
Australian/Asian University Co-operation Scheme	107	41	21
Australian International Awards Scheme(*a*)	241	70	38
Australia Papua New Guinea Education and Training Scheme(*b*)	2,907	134	413
Colombo Plan	16,895	1,474	943
Commonwealth Co-operation in Education Scheme	1,926	198	144
Special Commonwealth African Assistance Plan	1,603	130	150
South East Asia Treaty Organisation	86	. .	. .
South Pacific Aid Program	904	92	158
Total	**24,669**	**2,139**	**1,867**

(*a*) Includes South-East Asian Scholarship Scheme. (*b*) Includes persons trained at International Training Institute (formerly Australian School of Pacific Administration) and also the Commonwealth Practical Training Scheme.

Diplomatic representation overseas

The Department of Foreign Affairs is responsible for advising the Minister for Foreign Affairs and the Australian Government on the conduct of foreign affairs and relations with foreign governments. Its officers staff the Australian diplomatic service and the consular and administrative service.

In September 1977 Australia maintained the following diplomatic and consular missions overseas. Full details of these missions are available from the Department of Foreign Affairs, Canberra, A.C.T. 2600.

NOTE. In certain cases the Head of Mission accredited to one country is also accredited to another country. Where this is the case the name of the country in which the Head of Mission is located is shown in brackets. Except where indicated the missions are located in capital cities.

Australian missions overseas

Embassies

Afghanistan (in Pakistan); Algeria; Argentina; Austria; Belgium; Bolivia (in Brazil); Brazil; Bulgaria (in Yugoslavia); Burma; Chile; China; Colombia (in Peru); Costa Rica (in Mexico); Czechoslovakia (in Poland); Denmark; Egypt; Ecuador (in Peru); Ethiopia (in Kenya); Finland (in Sweden); France; German Democratic Republic; Germany, Federal Republic of; Greece; Guatemala (in Mexico); Holy See (in Malta); Hungary (in Austria); Indonesia; Iran; Iraq; Ireland; Israel; Italy; Ivory Coast (in Ghana); Japan; Jordan (in Lebanon); Republic of Korea; Kuwait (in Saudi Arabia); Laos; Lebanon; Luxembourg (in Belgium); Malagasy Republic (in Tanzania); Maldives (in Sri Lanka); Mexico; Mongolia (in U.S.S.R.); Nepal (in India); Netherlands; Norway (in Sweden); Pakistan; Panama (in Mexico); Paraguay (in Argentina); Peru; Philippines; Poland; Portugal; Romania (in Yugoslavia); Saudi Arabia; Senegal (in Ghana); Seychelles (in Kenya); South Africa; Spain; Sudan (in Egypt); Sweden; Switzerland; Syria; Thailand; Tunisia (in Algeria); Turkey; Union of Soviet Socialist Republics; United Arab Emirates (in Saudi Arabia); United States of America; Uruguay (in Argentina); Venezuela (in Peru); Vietnam; Yugoslavia.

High Commissions

Bangladesh; Bahamas (in Jamaica); Barbados (in Jamaica); Botswana (in South Africa); Britain; Canada; Cyprus; Fiji; Ghana; Grenada (in Jamaica); Guyana (in Jamaica); India; Jamaica; Kenya; Lesotho (in South Africa); Malaysia; Malta; Mauritius (in Tanzania); Nauru; New Zealand; Nigeria; Papua New Guinea; Singapore; Sri Lanka; Swaziland (in South Africa); Tanzania; Tonga (in Fiji); Trinidad and Tobago (in Jamaica); Uganda (in Kenya); Western Samoa; Zambia (in Tanzania).

Commissions

Hong Kong, Solomon Islands.

Other

Mission to—European Communities (Brussels); United Nations (New York); United Nations (Geneva); United Nations Educational, Scientific and Cultural Organisation (Paris); Organisation for Economic Co-operation and Development (Paris).

Consulate-General in—New York; San Francisco; Chicago; Lae; Hamburg; Osaka; Milan; Karachi; Bahrain; Sao Paulo; Auckland; Christchurch; Manchester; Port of Spain; Toronto; Vancouver.

Consulate in—Geneva; Noumea; Capetown; Honolulu; Rio de Janerio; Edinburgh; Messina.

Specialist officers of the Department of Trade and Resources (formerly the Department of Overseas Trade), other Australian Government Departments and the Defence Services stationed abroad are attached to Australian diplomatic or consular missions. Senior attached officers are in some cases accredited to the missions with diplomatic or consular ranks approved by the Minister for Foreign Affairs.

In addition, the Department of Trade and Resources maintains Trade Commissioner posts which engage in trade promotion in a number of cities where Australia does not have diplomatic or consular representation (*see* pages 95–96). The Department of Immigration and Ethnic Affairs similarly maintains offices overseas which engage in the selection of migrants and other functions appropriate to that Department.

Agents-General for States

From early times the Australian colonies maintained agents in London to encourage immigration and to carry out commercial and financial negotiations. Since Federation the States have continued to maintain Agents-General in London, all of whom work in close co-operation with the High Commissioner for Australia at Australia House, London. Some of the States also maintain other offices overseas.

Diplomatic representation to Australia

The following list shows the diplomatic missions to Australia. Full details of Commonwealth and foreign representation in Australia are available from the Department of Foreign Affairs, Canberra, A.C.T. 2600. Consular representatives are not included; particulars of these are also available from the Department of Foreign Affairs. There are about 400 such representatives in Australia, representing about seventy countries.

Embassies

Afghanistan (in Japan); Argentina; Austria; Belgium; Bolivia; Brazil; Bulgaria (in Indonesia); Burma; Chile; China; Czechoslavakia (in Indonesia); Denmark; Egypt; Finland; France; German Democratic Republic; Germany, Federal Republic of; Greece; Guatemala (in Japan); Holy See; Hungary (in Indonesia); Indonesia; Iran; Iraq (in Indonesia); Ireland; Israel; Italy; Japan; Jordan; Republic of Korea; Kuwait (in Japan); Laos; Lebanon; Mexico; Mongolia (in Japan); Nepal (in Japan); Netherlands; Norway; Pakistan; Peru; Philippines; Poland; Portugal; Romania; Senegal (in India); South Africa; Spain; Sweden; Switzerland; Thailand; Turkey; Union of Soviet Socialist Republics; United States of America; Uruguay; Vietnam; Yugoslavia.

High Commissions

Bangladesh; Britain; Canada; Cyprus; Fiji; Ghana; India; Malaysia; Malta; Mauritius; New Zealand; Nigeria; Papua New Guinea; Singapore; Sri Lanka.

Trade representation overseas

The Australian Trade Commissioner Service, January 1978

The Department of Trade and Resources maintains Trade Commissioners at fifty-eight posts in forty-six countries. More than fifty editions of the Department of Trade and Resources' promotion periodical *Australian Trading News* now circulate in more than 100 countries in seventeen languages. (*See also* Australian Trade Missions in the chapter Overseas Transactions.)

The countries where Australian Trade Commissioner posts are located are shown in the following list. Except where indicated the missions are located in capital cities only.

Argentina; Austria; Bahrain; Belgium; Brazil (Sao Paulo); Britain (London, Manchester); Canada (Vancouver, Ottawa, Toronto); China; Egypt; Fiji; France; German Democratic Republic; Germany, Federal Republic of (Bonn, Hamburg); Greece; Hong Kong; India; Indonesia; Iran; Iraq; Israel; Italy (Rome, Milan); Japan (Tokyo, Osaka); Kenya; Republic of Korea; Libya; Malaysia; Mexico; Netherlands; New Zealand (Wellington, Auckland, Christchurch); Nigeria; Pakistan; Papua New Guinea; Peru; Philippines; Poland; Saudi Arabia; Singapore; South Africa (Johannesburg); Spain; Sweden; Switzerland (Geneva, Berne); Thailand; Trinidad and Tobago; United States of America (Washington DC, Chicago, New York, San Francisco); U.S.S.R.; Yugoslavia.

Full details of the Australian Trade Commissioner posts are available from the Department of Trade and Resources, Canberra, A.C.T. 2600.

Australian Trade Correspondents and Marketing Officers

Detached Australian Trade Correspondents and Marketing Officers supplement the work of the Trade Commissioner in whose territory they are located. Correspondents are located in Addis Ababa, Ethiopia; Algiers, Algeria; Istanbul, Turkey; Kota Kinabalu, Sabah; and Tahiti, French Polynesia. Marketing Officers are located in Colombo, Sri Lanka; Copenhagen, Denmark; Dacca, Bangladesh; Dublin, Ireland, Honolulu, U.S.A.; Noumea, New Caledonia; Port Louis, Mauritius; Rangoon, Burma; Rio de Janeiro, Brazil; and Santiago, Chile.

Trade representation in Australia

The Trade Representatives of overseas governments in Australia are shown in the following list. Full details of Trade Representatives in Australia are available from the Department of Foreign Affairs, Canberra, A.C.T. 2600.

Austria (Sydney); Belgium (Sydney, Melbourne, Perth); Britain (Canberra, Sydney, Melbourne Brisbane, Adelaide, Perth); Bulgaria (Sydney); Canada (Sydney, Melbourne); China (Canberra); Czechoslovakia (Sydney); Denmark (Sydney); Finland (Sydney); France (Sydney, Melbourne); German Democratic Republic (Sydney); Germany, Federal Republic of (Sydney, Melbourne); Greece (Sydney); Hungary (Sydney); Israel (Sydney); Italy (Sydney, Canberra, Melbourne); Indonesia (Sydney, Canberra); Japan (Canberra); Malaysia (Sydney); Mexico (Sydney); New Zealand (Sydney, Melbourne, Canberra, Brisbane, Perth); Norway (Canberra); Pakistan (Sydney); Peru (Canberra); Philippines (Sydney, Melbourne); Poland (Sydney); Romania (Sydney); Singapore (Sydney); South Africa (Melbourne); Spain (Sydney); Sri Lanka (Sydney); Sweden (Sydney, Melbourne); United States of America (Sydney, Melbourne); U.S.S.R. (Canberra).

CHAPTER 6

DEMOGRAPHY

This chapter deals with the size, growth, geographic location and characteristics of the population and with components of population change, namely births, deaths, marriage, divorce and international migration.

The sources of the statistics in this chapter are population censuses, population surveys, State and Territorial registers of births, deaths and marriages, records of courts dealing with divorce, and other administrative records such as passenger cards required from international travellers and records of electoral roll and family allowance transfers.

With the proclamation of the *Constitution Alteration (Aboriginals)* 1967 on 10 August 1967, the provision in Section 127 of the Constitution requiring the exclusion of Aboriginals in reckoning the numbers of the people of the Commonwealth or of a State or other part of the Commonwealth was repealed. Accordingly, population and vital statistics for all dates subsequent to 10 August 1967 no longer exclude full-blood Aboriginals. Also, estimates for periods back to 30 June 1961 have been revised to include Aboriginals.

A list of publications of the Australian Bureau of Statistics which contain detailed population statistics is given at the end of this chapter.

THE POPULATION

The population census

Basic enumerations of the population have been made since the early days of settlement in Australia. The early enumerations were known as 'musters'. A census conducted in New South Wales in 1828 became the first in a series of regular censuses in that colony. Periodic censuses were taken in the other Australian colonies. The first simultaneous censuses of all the Australian colonies was taken in 1881. The first national census was taken in 1911. It was followed by others in 1921, 1933, 1947, 1954, 1961 and at five yearly intervals thereafter. A special article on early censuses appears in Year Book No. 15 of 1922. A special article outlining the history, purposes, legal basis, organisation and publication of results of population censuses appears in Year Book No. 53 of 1967, pp 164–170.

Every census from 1881 has inquired into age, sex, marital status, birthplace, nationality, citizenship and occupation. A wide variety of other topics has been included from time to time.

The most recent census in Australia was conducted on 30 June 1976. In addition to the basic demographic topics mentioned above, questions were asked on income (included for the first time since 1933); the effects of handicaps; child care arrangements; and mortgage repayments. This Year Book contains only preliminary data on age, marital status, place of birth (Australia or overseas) because the main processing of the census data was delayed for 12 months following government decisions on financial restraint. To effect further savings, the Government decided to process only a sample of the schedules at the main processing stage. The sample included all the schedules from the Northern Territory and from non-private dwellings (e.g. hotels, hospitals, jails), together with 50 per cent of the remaining householders' schedules.

The population census in Australia is de facto, i.e. persons are enumerated where they spend census night even though that may not be where they usually live. Visitors to Australia are enumerated if they are in Australia on census night, regardless of the duration of their stay. Australians out of the country are excluded, as are foreign diplomatic personnel and their families.

Despite elaborate arrangements aimed at obtaining complete coverage, it is not possible to ensure that a census schedule is returned for every individual. Some error inevitably remains for various reasons (e.g. inadvertent omission of very young children, missed dwellings or occupied dwellings mistakenly taken as unoccupied). Since 1966, sample surveys have been taken soon after each census to discover the approximate extent of under-enumeration and the effects on the census results of misstatement or non-reply to specific questions. From these studies it appears that under-enumeration has increased over the most recent censuses. Under-enumeration at the 1976 census is estimated to have been 2.7 per cent, details of which are available in the Bureau publication *Population of States and Territories Adjusted for Under Enumeration as shown by Post Enumeration Survey* (2409.0). Under-enumeration varies from location to location and for populations of different ages and other characteristics. These and similar problems are common to all population censuses and, although under-enumeration has increased in Australia since the 1971 census, it is of a similar order to that experienced by comparable countries.

Population estimates

The census enumeration, adjusted for under-enumeration, forms the basis for quarterly estimates of the population prepared by sex and State. These are calculated by updating for subsequent births and deaths and for overseas arrivals and departures and interstate movements. Age estimates are prepared annually for each State and Territory. Small area estimates are also made annually.

From 1976, and retrospectively to June 1971, the overseas migration component is defined as the excess of overseas arrivals over overseas departures, classified as permanent and long-term. Long-term includes visits to or absences from Australia lasting one year or longer. Previously, all overseas movement was included. Since 1961, interstate movement which enters the calculation of population estimates for the States and Territories has excluded holiday, business or other short term movements. Thus, quarterly seasonal changes due to short term overseas movement are reflected in Australian and State population figures prior to 1971 but not thereafter, and quarterly seasonal movements due to interstate holiday travel are reflected in population figures prior to 1961 but not thereafter.

Estimates of the population as at 30 June 1971 and 30 June 1976 are based on the population as counted at the time of those censuses with an adjustment for under-enumeration. The estimate of the population as at 30 June 1971 is 12,937.2 thousand compared with the counted population of 12,755.6 thousand. The population as at 30 June 1976, taking account of under-enumeration, is estimated at 13,915.5 thousand. While adjustments will be made to the estimates of the age and sex of the population of each State and of the population of each local government area, it is not possible to adjust all the statistical material derived from the census.

The quarterly estimates from June 1971 to June 1976 have also been revised to take into account the 1976 census and to allow for under-enumeration at that and the preceding census.

Mean populations, by sex, are calculated for calendar and financial years to the formula—

$$\text{Mean population} = \frac{a + 4b + 2c + 4d + e}{12}$$

where *a* is the population at the end of the quarter immediately preceding the twelve month period, and *b*, *c*, *d* and *e* are the populations at the end of each of the four succeeding quarters.

Size and growth of Australia's population

When Europeans first settled in Australia, the Aboriginal population is believed to have been at least 300,000. The Aboriginal population suffered a drastic decline in numbers over the next 145 years so that by 1933 it is estimated to have totalled about 67,000. It has since risen (to about 116,000 in 1971), and the current rate of growth exceeds 2 per cent a year.

The population of Australia reached 1 million in 1858, 5 million in 1918 and 14 million in January 1977.

In the period 1861 to 1977, natural increase has been the major element in population growth, and immigration the most variable. In the years 1861 to 1890, total growth on average exceeded 3 per cent a year and natural increase 2 per cent. The rate of natural increase declined during the last decade of the nineteenth century and the first decade of the twentieth century, and this, together with a near cessation of immigration during that period, reduced the rate of growth from 3.70 per cent in 1861–70 to 1.63 per cent in 1901–10.

The 1914–18 war was the dominating influence in the decade 1911–1920: during the war and immediate post-war years the birth rate rose and immigration was resumed. In the economic depression of the 1930s, however, natural increase fell to its lowest level ever and immigration ceased; indeed, in some years, overseas departures exceeded arrivals.

With the outbreak of the 1939–45 war, Australia entered a new phase. The immediate effect of the war was to increase the number of marriages and births. The increasing births more than offset the rise in deaths due to war casualties and higher civilian death rates. Migration in these years was negligible.

The period 1947 to 1961 was marked by a continued high natural increase and a resumption of immigration, the latter resulting in very high net gains in each of the four years 1949 to 1952.

Between 1961 and 1970, net migration continued at about the same level as in the previous decade, but there were declines in the crude birth rate and the rate of natural increase. The years since 1971 have been characterised by a reduced rate of natural increase due to a decline in the birth rate and lower levels of net migration; together, these have resulted in the lowest rate of population growth for 30 years. In 1976, the rate of growth was 1.02 per cent, of which 0.83 per cent was due to natural increase and 0.18 per cent to net migration. (The discrepancy between the rate of growth and the component parts is due to intercensal adjustment.) The total population at 30 June 1977 was estimated to be 14,074,000.

POPULATION AND COMPONENTS OF GROWTH

		Average annual rate of growth (*b*) (*per cent*)		
Period	*Population at end of period* ('*000*) (*a*)	*Natural increase*	*Net migration* (*c*)	*Total*
1851–1860	1,145.6			
1861–1870	1,647.8	2.47	1.23	3.70
1871–1880	2,231.5	2.07	1.01	3.08
1881–1890	3,151.4	2.05	1.46	3.51
1891–1900	3,765.3	1.73	0.07	1.80
1901–1910	4,425.1	1.53	0.10	1.63
1911–1920	5,411.3	1.60	0.43	2.03
1921–1930	6,500.8	1.32	0.53	1.85
1931–1940	7,077.6	0.79	0.05	0.85
1941–1950	8,307.5	1.13	0.47	1.61
1951–1955	9,311.8	1.38	0.95	2.31
1956–1960	10,391.9	1.40	0.83	2.22
1961–1965	11,505.4	1.27	0.74	1.98
1966–1970	12,663.5	1.11	0.91	1.94
1971–1975	(*d*)13,849.3	1.08	0.49	1.59
1971	(*d*)13,070.0	1.29	0.81	2.11
1972	(*d*)13,283.9	1.19	0.43	1.64
1973	(*d*)13,490.6	1.03	0.51	1.56
1974	(*d*)13,709.5	0.96	0.65	1.62
1975	(*d*)13,849.3	0.90	0.10	1.02
1976	(*d*)13,991.2	0.83	0.18	1.02

(*a*) Excludes full-blood Aboriginals prior to 1961. (*b*) The average annual rates of population growth for periods greater than one year are calculated on the compound interest principle. The rates refer to the population at the beginning of the period. Discrepancies between the sum of the rate of growth due to natural increase and net migration and the rate of total growth are due to intercensal adjustment. (*c*) From 30 June 1971, net migration is defined as the excess of overseas arrivals over overseas departures classified as permanent and long term movement. (Long term includes visits to and absences from Australia lasting one year or longer.) From 30 June 1933 to 30 June 1971, net migration represents the excess of all arrivals over all departures. Prior to 30 June 1933, net migration includes discrepancies disclosed by the various censuses, which were corrected by adjusting recorded overseas departures. (*d*) These population estimates and rates of growth incorporate revisions resulting from an examination of evidence of under-enumeration in the 1976 and 1971 censuses. The estimated population at 31 December 1970 used to compute rates of growth thereafter was 12,799,600.

Projections of the population

Projections of Australia's population are made using the component method in which a base population is brought forward year by year by applying assumptions about future trends of fertility, mortality and the characteristics of overseas migration.

The projections given here cover the years 1978 to 2001 and are based on provisional estimates of the population for 1977. The assumptions used in the projections are as follows:

Fertility. Rates were chosen on the assumptions that first births will stabilise by about 1981 at a level somewhat lower than that experienced by recent generations of women; that the proportion of women with one child who will have a second child will remain more or less the same; and that the falling off in fertility rates among women who have 3 or more children will continue until 1984. The overall effect will be a further small decline of fertility followed by a rise to replacement level in 1984. Constant rates are assumed thereafter.

Mortality. It is assumed that the 1970–72 age specific mortality rates will continue to apply for the duration of the projections except that infant mortality is assumed to decline by about 1.5 per cent per annum.

Migration. Net immigration has been projected at an illustrative level of 50,000 persons per year. The age-sex composition is based on the pattern of permanent arrivals and departures in the 5 years 1971 to 1975.

According to these projections the population will number 16.5 million in 2001 without further immigration; this represents an average annual rate of growth of 0.7 per cent. With net immigration at 50,000 persons per year, the population will be 18 million and the rate of growth will be 1.0 per cent a year. The proportion of persons aged 65 and over will increase from the present level of about 9 per cent to 9.7 per cent in 2001, and the proportion of children aged under 15 will decline from the present level of 26.7 per cent to 23.4 per cent in 2001.

PROJECTED POPULATION OF AUSTRALIA: 1978 TO 2001

30 June—	*Excluding migration after 30 June 1977*	*Resulting from net immigration at the illustrative level of 50,000 persons a year after 30 June 1977*	*Including net immigration at the illustrative level of 50,000 persons a year after 30 June 1977*
	'000	'000	'000
1977p	14,074	. .	14,074
1978	14,167	51	14,218
1979	14,266	102	14,368
1980	14,364	155	14,519
1981	14,464	210	14,674
1991	15,568	817	16,384
2001	16,498	1,505	18,003

Location of the population

For historical, climatic and economic reasons the population of Australia is concentrated in capital cities and other major towns, mainly on the south and east coast of the continent. In June 1976, 69.7 per cent of the population lived in the six State capital cities and five other major towns of 100,000 or more persons (metropolitan statistical divisions and statistical districts). Of these, only Canberra is located inland. The percentage of the population living in rural areas has declined over the years as the major cities and towns have attracted most of the population growth; there have been periods when the rural population has actually declined in numbers. This trend, however, appears to have slowed considerably since 1971.

POPULATION IN CAPITAL CITIES AND OTHER MAJOR TOWNS OF 100,000 PERSONS OR MORE(*a*): 30 JUNE 1976

('000 persons)

Sydney	3,094.4
Melbourne	2,672.2
Brisbane	985.9
Adelaide	912.1
Perth	820.1
Newcastle	370.5
Wollongong	218.9
Canberra	201.8
Hobart	164.5
Geelong	135.6
Gold Coast	122.2
Total	**9,698.2**
Percentage of total population	69.69

(*a*) Metropolitan statistical divisions and statistical districts of 100,000 persons or more.

The percentage of the population living in major cities and towns varies considerably between States. Victoria and New South Wales have the highest percentage (75.0 per cent) followed by South Australia (72.3 per cent), Western Australia (70.1 per cent), Queensland (52.5 per cent) and Tasmania (40.4 per cent).

Two of the State capital cities exceed 1 million people: Sydney, N.S.W., with an estimated 3,094,400 people, and Melbourne, Victoria, with 2,672,200 people.

While there has been a continuous growth in all States this century, there has been a noticeably higher rate of growth in Western Australia and the two territories, the Australian Capital Territory and the Northern Territory. Tasmania has had the least growth.

POPULATION OF STATES AND TERRITORIES

('000 persons)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.(a)*	*Aust.*
3 April 1881	749.8	861.6	213.5	276.4	29.7	115.7	3.5	..	2,250.2
5 April 1891	1,127.1	1,140.1	393.7	315.5	49.8	146.7	4.9	..	3,177.8
31 March 1901	1,354.8	1,201.1	498.1	358.3	184.1	172.5	4.8	..	3,773.8
3 April 1911	1,646.7	1,315.6	605.8	408.6	282.1	191.2	3.3	1.7	4,455.0
4 April 1921	2,100.4	1,531.3	756.0	495.2	332.7	213.8	3.9	2.6	5,435.7
30 June 1933	2,600.8	1,820.3	947.5	580.9	438.9	227.6	4.9	8.9	6,629.8
30 June 1947	2,984.8	2,054.7	1,106.4	646.1	502.5	257.1	10.9	16.9	7,579.4
30 June 1954	3,423.5	2,452.3	1,318.3	797.1	639.8	308.8	16.5	30.3	8,986.5
30 June 1961(*b*)	3,918.5	2,930.4	1,527.5	971.5	746.8	350.3	44.5	58.8	10,548.3
30 June 1966	4,237.9	3,220.2	1,674.3	1,095.0	848.1	371.4	56.5	96.0	11,599.5
30 June—									
1971	4,679.4	3,520.4	1,881.4	1,185.3	1,043.1	390.2	91.9	145.6	12,937.2
1972	4,746.9	3,577.4	1,932.5	1,202.4	1,070.9	392.2	96.6	158.0	13,177.0
1973	4,793.4	3,628.4	1,987.3	1,217.9	1,089.8	395.7	99.7	168.2	13,380.4
1974	4,839.4	3,676.8	2,046.1	1,236.2	1,117.4	399.3	104.4	179.6	13,599.1
1975	4,884.5	3,719.1	2,084.0	1,252.1	1,146.7	404.7	89.4	190.9	13,771.4
1976	4,914.3	3,746.0	2,111.7	1,261.6	1,169.8	407.4	101.4	203.3	13,915.5
1977(*c*)	4,955.0	3,781.5	2,138.6	1,277.2	1,197.0	410.7	105.5	208.5	14,074.0
Percentage of total population(*b*)	**35.21**	**26.87**	**15.20**	**9.07**	**8.51**	**2.92**	**0.75**	**1.48**	**100.00**

(*a*) Part of New South Wales before 1911. (*b*) Figures before 1961 exclude full-blood Aboriginals, later figures do not. The estimates from June 1971 for each State and Territory are made from the 1971 census results, with augmented adjustments for under-enumeration to make the total balance with the estimates for Australia made retrospectively from 1976. (*c*) Provisional figures.

General characteristics of the population

If we present the age composition of the population in the form of a pyramid, the increase in the birth rate in the 1940s and 1950s can be readily seen in the broadening at ages 15 to 30. The stabilisation of the number of births in the 1960s and 1970s is reflected in a more even structure at younger ages. Postwar immigration, which at least in the earlier years was characterised by a preponderance of men in the working ages, appears as a corresponding 'bulge' from about 35 upwards.

Although the numbers of men and women aged 15 and over are nearly equal, there are more single men than single women and there are more widows than widowers. The first phenomenon is attributable to women generally marrying about 2 years younger than men, and the second to their greater longevity. In 1976, 29 per cent of the male population aged 15 and over was single, 64 per cent married (excluding 2.2 per cent married but recorded as permanently separated), 2.7 per cent widowed and 2 per cent divorced. For females the figures were 21 per cent single, 62.5 per cent married (excluding 2.7 per cent married but permanently separated), 11 per cent widowed and 2.5 per cent divorced.

In 1976, people born overseas made up 20 per cent of the population, about the same as 1971 but an increase on earlier censuses.

The proportion of the population of working age (taken as 15 to 64) increased between 1971 and 1976, particularly among those aged 15–44 who, as a proportion of the total population, increased from 42.9 per cent to 44.2 per cent.

Although there was also a rise in the number of persons in the population aged under 15, these young dependents made up a reduced percentage of the total population: 27.2 per cent in 1976 as compared with 28.8 per cent in 1971. The numbers aged 65 and over, i.e. the aged dependent group, increased from 8.3 per cent to 8.7 per cent.

AGE PYRAMID OF THE POPULATION, 1976

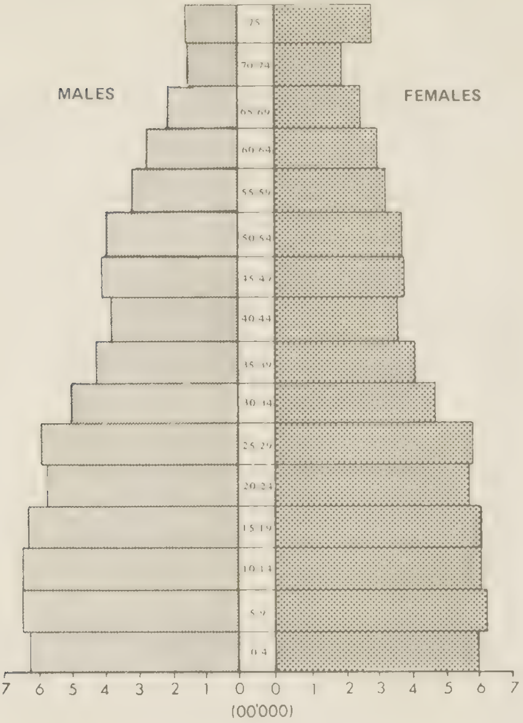

PLATE 26

ESTIMATED AGE DISTRIBUTION: 30 JUNE 1976(*a*)

('000)

Age Group (years)	*Males*	*Females*	*Persons*
0–4	630.5	602.0	1,232.5
5–9	654.0	621.5	1,275.5
10–14	646.9	610.9	1,257.8
15–19	638.2	610.9	1,249.1
20–24	588.1	576.3	1,164.5
25–29	594.8	579.2	1,174.0
30–34	499.6	468.7	968.3
35–39	430.8	406.6	837.4
40–44	382.4	360.2	742.6
45–49	407.6	379.6	787.2
50–54	389.5	377.6	767.1
55–59	319.4	324.4	643.8
60–64	278.6	300.9	579.5
65–69	215.4	244.8	460.2
70–74	148.0	188.0	336.0
75+	155.5	284.7	440.1
All ages	**6,979.4**	**6,936.1**	**13,915.5**

(*a*) Preliminary

The masculinity of the population is expressed as the number of males per 100 females. This ratio is influenced by the age structure: masculinity at birth is about 105.5, but higher male mortality gradually erodes the difference so that by about age 50 the numbers of males and females tend to be equal, and the ratio progressively declines thereafter. Immigration, with its large proportion of young adult males, also affects the masculinity of the population.

DISTRIBUTION OF POPULATION BY MARITAL STATUS: 1954 TO 1976

(Per cent)

30 June	*Never married* Under 15	*Never married* 15 and over	Married	Married but permanently separated	Widowed	Divorced	Total
			MALES				
1954	28.9	21.2	45.4	1.3	2.5	0.7	100.0
1961	30.6	20.7	44.5	1.3	2.2	0.7	100.0
1966	29.9	21.4	44.5	1.3	2.1	0.7	100.0
1971	29.3	20.7	45.6	1.3	2.0	1.0	100.0
1976	28.0	21.0	46.1	1.6	1.9	1.4	100.0
			FEMALES				
1954	28.3	15.4	46.1	1.5	7.9	0.8	100.0
1961	29.8	14.8	45.1	1.5	7.9	0.8	100.0
1966	28.9	15.7	44.9	1.5	8.1	0.9	100.0
1971	28.2	14.9	46.1	1.5	8.2	1.1	100.0
1976	26.6	15.6	45.9	2.0	8.1	1.8	100.0

POPULATION BORN IN AUSTRALIA AND OVERSEAS AS A PERCENTAGE OF TOTAL POPULATION

30 June	*Australian born* Males	*Australian born* Females	*Australian born* Persons	*Overseas born* Males	*Overseas born* Females	*Overseas born* Persons
1954	83.9	85.6	85.7	16.1	14.4	14.3
1961	81.4	84.8	83.1	18.6	15.2	16.9
1966(*a*)	80.2	82.9	81.6	19.8	17.0	18.4
1971(*a*)	78.5	81.0	79.8	21.5	19.0	20.2
1976(*a*)	78.9	80.8	79.8	21.1	19.2	20.2

(*a*) Includes Aboriginals.

MASCULINITY IN EACH AGE GROUP(*a*)

Census	*Age in years* 0–14	15–44	45–64	65 and over	Total
1954	104.47	106.20	100.97	81.63	102.38
1961	104.86	106.73	102.46	75.31	102.24
1966	105.00	105.96	101.73	72.02	101.45
1971	105.11	105.31	100.89	72.54	101.17
1976	105.29	104.40	100.93	72.31	100.62

(*a*) Based on census results adjusted for mis-statement of age and, for 1971 and 1976, for under-enumeration.

POPULATION IN AGE GROUPS: 1954 TO 1976

	Number ('000)				*Per cent*			
30 June	*Under 15*	*15–44*	*45–64*	*65 and over*	*Under 15*	*15–44*	*45–64*	*65 and over*
				MALES				
1954	1,309.7	1,996.3	904.7	335.3	28.8	43.9	19.9	7.4
1961	1,626.2	2,244.2	1,057.8	384.2	30.6	42.2	19.9	7.2
1966(*a*)	1,748.2	2,517.5	1,161.8	414.1	29.9	43.1	19.9	7.1
1971(*a*)	1,920.9	2,844.7	1,284.1	456.5	29.5	43.7	19.7	7.0
1976(*a*)	1,931.4	3,134.0	1,395.2	518.8	27.7	44.9	20.0	7.4
				FEMALES				
1954	1,253.7	1,879.8	896.2	410.8	28.2	42.3	20.2	9.2
1961	1,550.8	2,102.7	1,032.3	510.1	29.8	40.5	19.9	9.8
1966(*a*)	1 665.0	2 375.9	1 142.0	575.0	28.9	41.3	19.8	10.0
1971(*a*)	1,827.6	2,701.3	1,272.8	629.3	28.4	42.0	19.8	9.8
1976(*a*)	1,834.4	3,001.9	1,382.4	717.5	26.4	43.3	19.9	10.3
				PERSONS				
1954	2,563.3	3,876.1	1,801.0	746.0	28.5	43.1	20.0	8.3
1961	3,177.0	4,346.9	2,090.0	894.2	30.2	41.4	19.9	8.5
1966(*a*)	3,413.2	4,893.4	2,303.8	989.1	29.4	42.2	19.9	8.5
1971(*a*)	3 748.5	5,546.0	2,556.9	1,085.9	29.0	42.9	19.8	8.4
1976(*a*)	3,765.8	6,135.9	2,777.6	1,236.3	27.1	44.1	20.0	8.9

(*a*) Includes Aboriginals.

The Aboriginal population

A brief account was given of the Australian Aboriginal population, its origin and its numbers as estimated from time to time in Year Book No. 17, pages 951–61. A special article by A. R. Radcliffe Brown dealing with the estimated number and distribution of the Aboriginal population at the date of the first settlement of European people in the continent appeared in Year Book No. 23, pages 687-696. That article arrived at an estimated minimum Aboriginal population of 251,000, based on the evidence available at the time; however estimates of upwards of 300,000 persons have since been assessed.

The task of collecting data on the Aboriginal population is singularly difficult, raising problems of coverage, definition and reporting. For this reason, statistics, even of the total Aboriginal population, should be treated with caution. This applies particularly to comparison of the changes in numbers from one census to another which can be affected by social attitudes and by changes made in the nature of the question in an attempt to improve coverage and reporting. For the censuses of 1971 and 1976 the question was designed to distinguish those persons who identify themselves as Aboriginals or Torres Strait Islanders.

ABORIGINALS AND TORRES STRAIT ISLANDERS
IN AUSTRALIA, 30 JUNE 1971

State	*Persons*
New South Wales	23,873
Victoria	6,371
Queensland	31,922
South Australia	7,299
Western Australia	22,181
Tasmania	671
Northern Territory	23,381
Australian Capital Territory	255
Total Australia	**115,953**

(a) Definition of Aboriginals and Torres Strait Islanders based on the race to which each person considers himself to belong and is not comparable with previous data.

Compared with the rest of the Australian population, Aboriginal women have very high rates of fertility and Aboriginal people at all ages suffer high rates of mortality. At the time of the 1971 census, the average issue of married Aboriginal women was 4.1 children (excluding still-born children). Acknowledging the probability of high reporting error among this group, this represents a total fertility rate of perhaps twice the rate of the population as a whole. The expectation of life at birth for Aboriginal Australians may be as low as 50 years, compared with 72 years for the rest of the population.

Internal migration

The 5-yearly censuses and occasional internal migration surveys (conducted in conjunction with the quarterly population survey) are the main source of information for internal migration. Estimates of interstate migration are obtained from address changes notified to the Electoral Office and the Department of Social Security.

The 1976 census set out to measure internal migration by asking respondents where they usually lived and where they had lived 5 years before. An additional question was added to the 1976 census which asked where the respondents had lived one year before.

Internal migration surveys were conducted in respect of each of the twelve-month periods ending 30 April between 1970 and 1974 and for the twelve-month periods ended 31 December between 1974 and 31 January 1977. In these surveys, the usual place of residence of respondents at the beginning and end of the reference period was ascertained. Estimates were made of the number and characteristics of those who changed their residence. (Because the estimates are based on information from occupants of a small sample of dwellings, the imprecision due to sampling variability should be kept in mind. Standard errors of estimates are published in the detailed bulletins providing the survey results. These bulletins are listed at the end of this chapter).

The internal migration surveys show that about 15 to 17 per cent of all persons aged 15 and over change their residence within a twelve-month period. Of those who change their residence, slightly over 50 per cent remain within the same capital city, slightly over 10 per cent are interstate movements and about 4 per cent are movements between State capital cities.

The New South Wales net internal migration loss reached a peak in 1973–74 when there was a net loss of 20,600 persons aged 15 and over; the State capital, Sydney, lost an estimated 26,600 persons in this age group. Smaller losses have been recorded since then. In contrast, Queensland and its capital, Brisbane, experienced net gains from internal migration until the most recent twelve months ended January 1977, when Brisbane had a net loss.

While the pattern of net migration gain or loss has varied over the years, the age and sex composition of those who changed residence has been rather consistent: the masculinity ratio remains around 50 to 51 per cent, and movers show a concentration in the ages 20 to 34 (59 per cent of all movers in the twelve-month period ended January 1977).

INTERNAL MIGRATION(*a*)
('000 persons)

Year ended	*Within State capitals*	*Into State capitals*	*Out of State capitals*	*Net capital city gain*	*Moved to another State or Territory*	*Total movers*	*Did not move*	*Total*
30 April—								
1970	639.6	114.1	101.5	12.7	148.5	1,320.1	7,267.8	8,587.9
1971	661.8	119.0	112.8	6.3	167.0	1,371.2	7,563.0	8,934.2
1972	714.5	116.0	103.3	12.7	157.2	1,393.1	7,561.5	8,954.6
1973	815.3	118.8	128.8	−10.0	170.3	1,584.2	7,479.4	9,063.6
1974	810.3	118.0	128.3	−10.3	170.4	1,592.6	7,645.3	9,237.9
31 December—								
1974	682.5	97.3	105.9	− 8.6	151.3	1,342.9	8,044.6	9,387.5
31 January—								
1977	816.3	113.1	101.6	11.5	161.9	1,581.1	8,161.6	9,742.7

(*a*) Includes non-institutionalised civilians aged 15 years and over at the time of the survey who were resident in Australia at the beginning and end of the survey year. Changes of residence away from and back to the same address during the survey year are not counted.

INTERSTATE MIGRATION(*a*)

Year ended		*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*
		NET GAIN (+) OR LOSS (–) ('000 PERSONS)							
30 April	1970	– 2.8	– 4.6	+ 3.9	–4.9	+ 5.7	–1.4	+0.9	+3.1
	1971	– 8.7	–10.2	+ 8.1	–3.3	+ 9.4	–1.5	(*c*)	+4.9
	1972	–16.2	(*c*)	+ 9.4	–2.7	+ 3.5	(*c*)	+1.8	+3.2
	1973	–17.5	+ 6.9	+10.4	–2.9	– 1.3	+1.1	..	+3.5
	1974	–20.6	– 3.2	+ 9.1	–1.2	+ 7.3	+2.7	–2.8	+8.8
31 December	1974	–16.3	– 3.7	+ 5.7	–1.3	+ 8.2	+1.6	(*c*)	+6.4
31 January	1977	–13.5	+ 5.3	+ 2.7	+2.9	+ 5.5	–2.0	–2.5	+1.6
		NET GAIN OR LOSS PER TEN THOUSAND OF POPULATION(*b*)							
30 April	1970	– 3.26	– 5.36	+ 4.54	–5.71	+ 6.64	–1.63	+1.05	+3.61
	1971	– 9.74	–11.42	+ 9.07	–3.69	+10.52	–1.68	(*c*)	+5.48
	1972	–18.09	(*c*)	+10.50	–3.02	+ 3.91	(*c*)	+2.01	+3.57
	1973	–19.31	+ 7.61	+11.47	–3.20	– 1.43	+1.21	..	+3.86
	1974	–22.30	– 3.46	+ 9.85	–1.30	+ 7.90	+2.92	–3.03	+9.53
31 December	1974	–17.36	– 3.94	+ 6.07	–1.38	+ 8.74	+1.70	(*c*)	+6.82
31 January	1977	–13.86	+ 5.44	+ 2.77	+2.98	+ 5.65	–2.05	–2.57	+1.64

(*a*) Non-institutionalised civilians aged 15 years and over at the time of the survey whose usual residence at the end of the survey year was in another State or Territory than at the beginning of the year and who were resident in Australia on both dates. (*b*) Necessarily, but contrary to normal practice, the population (non-institutionalised civilians aged 15 years and over) is that at the end of the period. (*c*) Very small estimate subject to sampling variability too high for most practical uses.

VITAL STATISTICS

Registration of vital events, i.e. births, deaths and marriages, has been compulsory throughout Australia since 1856. The total number of these occurrences is available for each year since the 1860s and more detailed information since the 1910s. The number of divorces has been published since 1891, but other details have been published on a consistent basis only since the 1950s.

Crude rates are the number of vital events per thousand of the mean population of a particular year. *Natural increase* is the excess of births over deaths. In 1976, births numbered 227,810, deaths 112,662 and the natural increase was 115,148. The rate of natural increase for that year was 8.27 per thousand of the mean population made up of crude birth rate 16.37 and crude death rate 8.10. This represented a considerable decline since 1951–55 when the birth rate was 22.86, the death rate 9.25 and natural increase 13.61. There were 109,974 marriages in 1976, a crude rate of 7.90. Divorces numbered 60,775 bringing the crude divorce rate to 4.37. This exceptionally high number of divorces occurred in the first year of operation of the family law court and may not be indicative of a trend.

MARRIAGE AND DIVORCE(*a*)

	Number		*Crude rates per 1,000 of mean population*	
Period	*Marriages*	*Divorces*	*Marriage*	*Divorce*
Annual averages—				
1951–55	73,102	7,159	8.29	0.81
1956–60	73,854	6,788	7.50	0.69
1961–65	83,250	7,611	7.63	0.70
1966–70	106,188	10,738	8.81	0.89
1971–75	111,802	17,405	8.36	1.30
Annual totals—				
1971	117,637	13,002	9.09	1.00
1972	114,029	15,707	8.65	1.19
1973	112,700	16,266	8.42	1.22
1974	110,673	17,744	8.14	1.30
1975	103,973	24,307	7.55	1.77
1976	109,973	(p)60,775	7.90	(p)4.37

(*a*) Excludes particulars of full-blood Aboriginals before 1966.

BIRTHS, DEATHS AND NATURAL INCREASE(*a*)

	Number			*Crude rates per 1000 of mean population*		
Period	*Births*	*Deaths*	*Natural increase*	*Births*	*Deaths*	*Natural increase*
Annual averages—						
1951–55	201,423	81,483	119,940	22.86	9.25	13.61
1956–60	222,459	86,488	135,971	22.59	8.78	13.81
1961–65	232,952	95,465	137,487	21.34	8.75	12.60
1966–70	240,325	107,263	133,062	19.95	8.90	11.05
1971–75	253,438	111,216	142,222	18.99	8.32	10.67
Annual totals—						
1971	276,362	110,650	165,712	21.36	8.55	12.81
1972	264,969	109,760	155,209	20.11	8.33	11.78
1973	247,670	110,822	136,848	18.51	8.28	10.23
1974	245,177	115,833	129,344	18.03	8.52	9.51
1975	233,012	109,021	123,991	16.92	7.91	9.00
1976	227,810	112,662	115,148	16.37	8.10	8.27

(*a*) Excludes particulars of full-blood Aboriginals before 1966.

Births and fertility

Special interest attaches to fertility as an element of population change. Fertility has varied over the years more than mortality and has had considerable impact on the population structure. Extensive studies have revealed patterns of fertility which justify attempts to predict the numbers of future births.

Live births

Comprehensive statistics of live births are available since the 1910s. These include information about sex of the children, the incidence of multiple births, marital status of the parents, the number of previous issue to the mother's existing marriage, the duration of marriage, the age of parents and their country of birth.

With rare exceptions, statistics indicate an excess of male over female births. The number of male births per hundred female births in Australia is about 105.5. In 1975 there were 119,850 male births and 113,162 female births, a masculinity ratio of 105.91.

NUPTIAL CONFINEMENTS: DURATION OF MARRIAGE(*a*)

	Duration of marriage, completed years									
Period	*0*	*1*	*2*	*3*	*4*	*5–9*	*10–14*	*15 and over*	*Not stated*	*Total*
Annual averages—										
1951–55	24,466	23,070	21,727	20,194	18,021	53,755	21,604	8,401	..	191,238
1956–60	27,590	24,161	23,475	20,987	18,605	60,449	24,531	10,249	..	210,047
1961–65	31,046	24,775	24,885	22,237	18,843	58,855	25,149	11,038	..	216,829
1966–70	31,920	25,903	27,566	25,253	20,831	57,457	20,415	9,100	491	218,937
1971–75	27,249	25,841	30,072	29,674	25,544	64,690	16,676	6,373	556	226,674
Annual totals—										
1971	33,986	29,279	32,669	29,756	25,109	67,584	20,765	8,607	483	248,238
1972	30,696	27,537	31,655	30,337	25,021	65,072	18,553	7,468	616	236,955
1973	26,433	24,721	29,853	30,054	25,376	61,951	15,999	6,221	674	221,282
1974	24,238	24,339	29,524	30,133	26,487	64,543	14,546	5,257	562	219,629
1975	20,890	23,327	26,657	28,089	25,725	64,302	13,519	4,312	446	207,267

(*a*) Excludes particulars of full-blood Aboriginals before 1966.

The proportion of children born to parents not married to each other at the time of birth has been increasing. In 1951–55, 3.9 per cent of births were ex-nuptial. In 1975 there were 23,570 ex-nuptial births, 10.1 per cent of all births. However the number of ex-nuptial births and the crude ex-nuptial birth rate has fallen since 1972.

About 1 per cent of confinements result in twin births and about one in 10,000 in triplets. Quadruplets occur about once in 250,000 confinements. The likelihood of multiple confinement is about 0.9 per cent for the first nuptial confinement, rising to about 1 per cent at the second confinement and to as much as 1.5 per cent at the fourth and subsequent confinements. The incidence of multiple births rises with age of mother.

Since the 1950s, there has been a decline in the proportion, and since 1971 in the number, of women having three or more children to their marriage. During the 1950s the median age of mother at first nuptial birth declined, but in recent years it has risen slightly. In 1975, median age at first birth was 23.95 years. Since 1971, there has been a decline in the number and proportion of confinements occurring in the first year of marriage. There were fewer births to marriages of 10 years duration and longer.

NUPTIAL CONFINEMENTS: BIRTH ORDER(*a*)

	Previous issue									
Period	*0*	*1*	*2*	*3*	*4*	*5*	*6 and over*	*Total nuptial (b)*	*Ex-nuptial*	*Confinements*
					NUMBER OF CONFINEMENTS					
Annual averages—										
1951–55	63,062	56,020	35,943	18,415	8,569	4,175	5,054	191,238	7,914	199,152
1956–60	65,695	57,532	40,920	22,968	11,299	5,558	6,075	210,047	9,918	219,965
1961–65	69,281	57,971	40,818	23,612	12,125	6,160	6,862	216,829	13,655	230,483
1966–70	80,999	62,930	37,446	18,899	8,961	4,489	5,213	218,937	18,707	237,644
1971–75	88,120	74,641	36,914	15,216	6,006	2,805	2,959	226,674	24,299	250,973
Annual totals—										
1971	95,418	74,752	41,938	19,444	8,365	4,015	4,306	248,238	25,404	273,642
1972	91,683	74,996	39,092	17,177	7,122	3,302	3,583	236,955	25,411	262,366
1973	85,707	74,004	35,694	14,444	5,779	2,642	2,996	221,282	23,970	245,252
1974	86,248	75,996	34,810	13,362	4,784	2,195	2,213	219,629	23,200	242,829
1975	81,543	73,456	33,036	11,653	3,979	1,873	1,699	207,267	23,510	230,777
					MEDIAN AGE OF MOTHER					
Annual averages—										
1951–55	24.14	27.02	29.25	31.34	33.01	34.29	35.52	27.42	24.47	27.33
1956–60	23.54	26.43	28.86	30.99	32.66	33.95	35.03	27.18	24.23	27.11
1961–65	23.12	25.72	28.35	30.64	32.51	33.88	35.02	26.54	22.54	26.38
1966–70	23.14	25.63	28.21	30.54	32.53	34.06	35.42	25.92	21.37	25.67
1971–75	23.60	25.96	28.21	30.55	32.53	34.09	36.84	25.87	21.12	25.58
Annual totals—										
1971	23.25	25.69	28.12	30.58	32.50	33.94	36.62	25.73	21.18	25.43
1972	23.43	25.83	28.23	30.56	32.32	34.02	36.79	25.76	21.01	25.49
1973	23.60	25.92	28.17	30.52	32.50	34.05	36.89	25.84	21.00	25.55
1974	23.77	26.09	28.23	30.52	32.67	34.12	36.94	25.96	21.10	25.66
1975	23.95	26.25	28.32	30.57	32.67	34.30	36.96	26.07	21.29	25.76

(*a*) Excludes particulars of full-blood Aboriginals before 1966. (*b*) Includes those whose previous issues are not stated; in 1975, there were 28 such cases.

LIVE BIRTHS AND CONFINEMENTS: PLURALITY(*a*)

	Confinement				
Period	*Single*	*Twin*	*Triplet*	*Other multiple*	*Total*
Annual averages—					
1951–55	196,785	2,345	21	1	199,152
1956–60	217,397	2,542	26	..	219,965
1961–65	227,948	2,509	26	..	230,483
1966–70	235,132	2,481	25	2	237,640
1971–75	248,459	2,488	25	1	250,973
Annual totals—					
1971	270,838	2,779	23	2	273,642
1972	259,719	2,622	24	1	262,366
1973	242,776	2,448	28	..	245,252
1974	240,437	2,367	23	2	242,829
1975	228,525	2,223	28	1	230,777

(*a*) Excludes particulars of full-blood Aboriginals before 1966.

LIVE BIRTHS: SEX AND NUPTIALITY(*a*)

	Live births				*Ex-nuptial live births*			
Period	*Males*	*Females*	*Persons*	*Masculinity*	*Persons*	*Masculinity*	*Percentage of total*	*Per 1000 of mean population*
Annual averages—								
1951–55 . . .	103,257	98,166	201,423	105.19	7,999	103.36	3.97	0.91
1956–60 . . .	114,288	108,171	222,459	105.65	10,027	104.49	4.51	1.02
1961–65 . . .	119,777	113,175	232,952	105.83	13,798	106.88	5.92	1.26
1966–70 . . .	123,326	116,999	240,325	105.41	18,937	105.11	7.88	1.57
1971–75 . . .	130,047	123,391	253,438	105.39	24,520	106.71	9.69	1.88
Annual totals—								
1971 . . .	141,114	135,248	276,362	104.34	25,629	106.05	9.27	2.01
1972 . . .	136,009	128,960	264,969	105.47	25,659	106.38	9.68	1.97
1973 . . .	126,969	120,701	247,670	105.19	24,198	104.69	9.77	1.84
1974 . . .	126,295	118,882	245,177	106.24	23,408	108.79	9.55	1.75
1975 . . .	119,850	113,162	233,012	105.91	23,705	107.83	10.17	1.75

(*a*) Excludes particulars of full-blood Aboriginals before 1966.

Fertility

General fertility rates, which are the number of births to women of any age per thousand females aged 15–44, are the simplest measure of fertility. These have been calculated for the three years' births around each census from 1881 and provide a consistent series for nuptial and exnuptial fertility as well as for total fertility.

The rates show a substantial decline in fertility over the total period with a low point in 1932–34 and a minor recovery peaking in 1960–62. The decline has been greater among married women, the rate for 1970–72 being only 40 per cent of the 1880–82 rate. The differences are explained by the increased marriage proportions. Ex-nuptial fertility in 1970–72 was higher than previously.

FERTILITY RATES: AUSTRALIA(*a*)

				Index numbers (base year 1880–82 = 100)		
Period	*Births per 1000 women, aged 15–44 years*	*Nuptial births per 1000 married women, aged 15–44 years*	*Ex-nuptial births per 1000 single, widowed or divorced women aged 15–44 years*	*Births per 1000 women, aged 15–44 years*	*Nuptial births per 1000 married women, aged 15–44 years*	*Ex-nuptial births per 1000 single, widowed or divorced women*
1880–82 . .	170	321	14	100	100	100
1890–92 . .	159	332	16	94	103	114
1900–02 . .	117	235	13	69	73	93
1910–12 . .	117	236	13	69	74	93
1920–22 . .	107	197	11	63	61	79
1932–34 . .	71	131	7	42	41	50
1946–48 . .	104	160	11	61	50	79
1953–55 . .	109	149	14	64	46	100
1960–62 . .	112	154	18	66	48	129
1965–67 . .	95	132	21	56	41	150
1970–72 . .	100	134	29	59	42	207

(*a*) Excludes particulars of full-blood Aboriginals before 1965–67.

Age specific birth rates provide a measure of changing patterns of fertility within the fertile ages. The sum of these rates, the total fertility rate, is a more useful measure of change than the general fertility rate since it takes into account the changing age structure of the population within the fertile ages. *The total fertility rate* represents the number of children a woman would bear in her lifetime if she experienced the rates of the year shown. Fertility at older ages has declined since the 1950s and for all age groups except 15–19 from the 1960s. Since 1971, fertility at 15–19 has also fallen. The total fertility rate, which rose in the 1950s, has since declined and in 1975 was 2.224.

AGE-SPECIFIC BIRTH RATES(*a*)

Period	*Age group (years)* *15–19*	*20–24*	*25–29*	*30–34*	*35–39*	*40–44*	*45–49*	*Total fertility*(*b*)
1951–55 .	39.54	192.81	192.97	123.51	65.05	20.50	1.53	3.180
1956–60 .	44.20	216.42	211.47	126.06	63.91	18.96	1.45	3.412
1961–65 .	46.50	203.95	207.15	122.38	59.18	17.54	1.19	3.289
1966–70 .	49.39	172.59	187.64	103.03	46.84	12.89	1.00	2.866
1971–75 .	49.02	158.83	172.46	87.55	34.75	8.67	0.59	2.559
1971 . .	55.51	181.88	193.52	101.79	44.16	11.31	0.79	2.945
1972 . .	54.45	168.67	181.67	94.04	38.87	10.01	0.75	2.742
1973 . .	49.05	155.37	166.93	84.17	33.62	8.42	0.60	2.491
1974 . .	45.24	150.11	164.52	81.47	30.02	7.36	0.46	2.396
1975 . .	40.90	138.21	155.73	76.30	27.08	6.22	0.37	2.224

(*a*) Number of births per 1,000 women in each age group. Excludes particulars of full-blood Aboriginals before 1966. (*b*) The sum of the age specific rates divided by 1,000. This is the number of children a woman would bear in her lifetime if she experienced the rates of the year shown.

The gross reproduction rate is derived from total fertility and the ratio of female to total births. It indicates the number of female children who would be born on average to women supposing the rates from which it was calculated were to apply throughout the reproductive period. It is an indication of the extent to which the population is reproducing itself except that it does not allow for females who failed to survive to the end of the childbearing period. *The net reproduction rate* allows for such mortality. It is obtained by multiplying the age-specific rates by the survivor proportions in the corresponding age group of the stationary or life table population. Mortality in childhood and young adulthood is now so low that there is little difference between current gross and net reproduction rates. In 1975 the gross and net reproduction rates were at their lowest level since the 1930s.

GROSS AND NET REPRODUCTION RATES(*a*)

Period	*Gross reproduction rate*	*Net reproduction rate*	*Life tables used*
1954	1.559	1.499	1953–55
1961	1.728	1.672	1960–62
1966	1.400	1.357	1965–67
1971	1.442	1.401	1970–72
1972	1.335	1.297	1970–72
1973	1.214	1.179	1970–72
1974	1.162	1.129	1970–72
1975	1.080	1.049	1970–72

(*a*) Excludes particulars of full-blood Aboriginals before 1966.

Fertility of Australian Marriages. This series is designed to show the pattern of fertility within marriage. Births in each year and at each duration of marriage to parents who were married in Australia are related (per thousand) to the Australian marriages a relevant number of years earlier.

The sum of these rates for all durations is *the index of current marriage fertility* and indicates the number of children marriages would produce according to the recorded fertility of that year.

Fertility in the first two to three years of marriage has fallen very substantially. For instance, fertility in the first year of marriage fell from 369 births per thousand marriages in 1956–60 to 185 in 1975. There has also been a substantial decline for marriages of ten years duration or longer from 292 per thousand at durations 10–14 years in 1956–60 to 135 per thousand in 1975. At longer durations the fall is proportionally greater still. There has been no rise at medium duration to compensate for the decline early and late in marriage. The index of current marriage fertility declined from the equivalent of 2.7 children per marriage in 1956–60 to 1.8 in 1975.

The annual rates accumulated according to year of marriage show the experience of successive marriage cohorts. These marriage cohort tables demonstrate an increasing delay by couples in having their first child. The marriages of 1955–56 had 1,262 children per thousand marriages by the end of the fourth year of marriage, compared with 1,314 for those married in 1960–61, and 926 for those married in 1971–72.

FERTILITY OF AUSTRALIAN MARRIAGES: ANNUAL RATES(*a*)

	Duration of marriage (years)										
Births occurring in—	*Under 1*	*1*	*2*	*3*	*4*	*Total under 5*	*5–9*	*10–14*	*15–19*	*20 and over*	*Total*
Annual averages—											
1956–60 . .	369	317	309	277	243	1,515	751	292	101	26	2,685
1961–65 . .	377	304	311	281	239	1,512	741	293	100	22	2,668
1966–70 . .	302	248	278	265	227	1,320	663	234	79	17	2,313
1971–75 . .	232	211	248	249	219	1,159	606	178	54	14	2,011
Annual rates—											
1971 . . .	282	240	279	270	235	1,306	694	231	75	15	2,321
1972 . . .	257	220	260	258	225	1,220	638	203	64	15	2,140
1973 . . .	228	201	240	246	214	1,129	581	170	54	12	1,946
1974 . . .	206	202	240	242	215	1,105	572	152	45	9	1,883
1975 . . .	185	192	222	228	205	1,032	544	135	37	9	1,757

(*a*) Excludes particulars of full-blood Aboriginals before 1966.

FERTILITY OF AUSTRALIAN MARRIAGES(*a*)

	Completed duration of marriage (years)						
Marriages of year—	*1*	*2*	*3*	*4*	*5*	*10*	*15*
1955–56 . .	352	674	983	1,262	1,511	2,262	2,497
1960–61 . .	403	721	1,039	1,314	1,536	2,194	2,379
1965–66 . .	324	575	855	1,125	1,356	1,961	. .
1970–71 . .	282	502	742	984	1,189	. .	. .
1971–72 . .	257	458	698	926	. .	. .	. .
1972–73 . .	228	430	652	. .	. .	. .	. .
1973–74 . .	206	398	. .	. .	. .	. .	. .
1974–75 . .	185	. .	. .	. .	. .	. .	. .

(*a*) Cumulated number of births per thousand marriages. From 1966 includes births of Aboriginals where parents were legally married and excludes births of tribal marriages.

Mortality

The number of deaths per year is now in excess of 100,000 a year and rising. This is not only as a result of the overall growth of the population, but also because of the advanced age of an increasing proportion of the population. The crude death rate, which fell from over 12 per 1,000 at the beginning of the century to 7.91 per 1,000 in 1976, can be expected to rise slowly as a result of further aging of the population, unless there is a more than off-setting drop in age specific death rates.

General Mortality

Between 1953–55 and 1960–62, mortality declined at most ages. Since then there has been little further change, except for infant mortality which has continued to fall. Indeed at some ages there have been small rises in age specific mortality. For instance, for males aged 15–19 the rate rose from 1.23 per 1,000 in 1960–62 to 1.54 in 1970–72, and for ages 20–24 it rose from 1.62 to 1.83.

Mortality is greater for males than for females at every age. It is relatively high in the first year of life (15.99 per 1,000 males and 11.88 per 1,000 females in 1975), very low in childhood and young adulthood, and then rises in middle and old age.

AGE-SPECIFIC DEATH RATES(*a*)(*b*)

Age group (years)	*1953–55 (c)*	*1960–62 (c)*	*1965–67 (c)*	*1970–72 (c)*	*1971*	*1972*	*1973*	*1974*	*1975*
				MALES					
Under 1(*d*)	25.18	22.36	20.85	19.50	19.02	18.95	18.56	18.41	16.29
1–4	1.69	1.15	1.08	1.00	0.94	0.99	0.98	0.95	0.85
5–9	0.67	0.52	0.45	0.46	0.47	0.44	0.44	0.44	0.37
10–14	0.63	0.48	0.46	0.42	0.46	0.41	0.39	0.40	0.39
15–19	1.51	1.23	1.33	1.54	1.58	1.47	1.52	1.62	1.55
20–24	1.82	1.62	1.67	1.83	1.88	1.72	1.77	1.76	1.71
25–29	1.68	1.49	1.48	1.39	1.47	1.26	1.33	1.39	1.34
30–34	1.79	1.69	1.64	1.52	1.59	1.44	1.46	1.51	1.48
35–39	2.40	2.26	2.45	2.29	2.34	2.19	2.13	2.18	2.14
40–44	3.64	3.67	3.82	3.49	3.37	3.46	3.55	3.44	3.38
45–49	6.01	5.96	6.14	6.08	6.12	6.14	6.21	6.21	5.95
50–54	10.44	10.01	10.45	10.05	10.02	9.70	9.74	10.13	9.84
55–59	17.03	16.57	16.96	16.80	16.81	16.36	16.00	16.70	15.93
60–64	26.58	26.44	27.59	27.13	26.44	27.08	26.36	26.85	24.70
65–69	41.28	41.68	43.66	42.72	41.98	41.11	41.60	41.58	39.18
70–74	64.53	63.04	66.84	65.21	64.76	64.94	64.18	64.88	60.65
75–79	98.77	94.43	99.77	102.26	100.60	100.29	100.06	102.73	92.24
80–84	145.88	141.83	146.95	148.51	147.97	147.14	149.87	156.63	141.73
85 and over	248.14	243.69	241.98	239.96	240.49	238.61	233.03	261.71	243.99
				FEMALES					
Under 1(*d*)	19.88	17.57	16.35	14.96	15.48	r14.37	14.32	13.74	12.31
1–4	1.35	1.08	1.14	0.79	0.79	0.77	0.73	0.72	0.67
5–9	0.50	0.38	0.34	0.33	0.32	0.33	0.33	0.33	0.27
10–14	0.37	0.29	0.27	0.27	0.22	0.26	0.25	0.28	0.23
15–19	0.58	0.50	0.54	0.61	0.68	0.55	0.58	0.52	0.54
20–24	0.67	0.60	0.63	0.59	0.65	0.59	0.54	0.53	0.50
25–29	0.83	0.71	0.72	0.66	0.67	0.62	0.57	0.61	0.54
30–34	1.11	0.95	0.98	0.91	0.95	0.87	0.81	0.77	0.78
35–39	1.74	1.47	1.54	1.43	1.38	1.29	1.30	1.30	1.34
40–44	2.55	2.26	2.31	2.23	2.26	2.16	2.05	2.13	2.04
45–49	4.19	3.65	3.86	3.64	3.79	3.56	3.62	3.58	3.29
50–54	6.43	5.55	5.87	5.59	5.54	5.47	5.16	5.55	4.98
55–59	9.25	8.14	8.67	8.51	8.47	8.40	8.22	8.41	7.86
60–64	14.75	13.31	13.56	13.15	13.04	12.68	12.53	13.02	12.26
65–69	23.89	21.99	21.94	21.29	20.50	20.34	19.60	20.66	19.27
70–74	40.93	37.14	37.47	36.12	36.65	34.65	34.48	34.20	32.17
75–79	69.72	63.18	62.37	62.35	62.62	59.64	58.67	59.73	54.45
80–84	117.36	105.10	107.93	103.78	103.65	102.28	102.55	105.17	94.54
85 and over	213.69	210.20	197.73	194.37	197.22	188.80	195.38	205.84	187.04

(*a*) Number of deaths per 1,000 of population of the same age group and sex. The populations used in the calculation of these rates are based on census populations at 30 June 1954, 1961, 1966 and 1971 and estimates at 30 June for later years. (*b*) Excludes particulars of full-blood Aboriginals prior to 1965–67. (*c*) Average annual rate per 1,000 of census population, based on deaths in the three year period, i.e. census year and the years preceding and following it. (*d*) Infant deaths per 1,000 live births.

AGE AT DEATH, 1976

Age at death (years)	Number			Per cent		
	Males	Females	Persons	Males	Females	Persons
Under 1	1,952	1,373	3,325	3.21	2.84	3.05
1– 4	446	333	779	0.73	0.69	0.71
5– 9	231	160	391	0.38	0.33	0.36
10–14	252	142	394	0.42	0.29	0.36
15–19	968	320	1,288	1.59	0.66	1.18
20–24	992	281	1,273	1.63	0.58	1.17
25–29	769	292	1,061	1.27	0.61	0.97
30–34	698	348	1,046	1.15	0.72	0.96
35–39	869	518	1,387	1.43	1.07	1.27
40–44	1,285	732	2,017	2.12	1.52	1.85
45–49	2,398	1,244	3,642	3.95	2.58	3.34
50–54	3,712	1,858	5,570	6.11	3.85	5.11
55–59	4,746	2,423	7,169	7.81	5.02	6.58
60–64	6,659	3,513	10,172	10.96	7.28	9.33
65–69	7,862	4,485	12,347	12.94	9.29	11.32
70–74	8,450	5,709	14,159	13.91	11.82	12.99
75–79	7,272	7,010	14,282	11.97	14.52	13.10
80–84	5,848	7,757	13,605	9.63	16.07	12.48
85–89	3,764	6,216	9,980	6.20	12.87	9.15
90–94	1,256	2,732	3,988	2.07	5.66	3.66
95–99	264	745	1,099	0.44	1.54	0.93
100 and over	30	90	120	0.05	0.19	0.11
Not stated	15	2	17	0.03	..	0.02
Total	**60,738**	**48,283**	**109,021**	**100.00**	**100.00**	**100.00**

Perinatal Mortality

Perinatal deaths comprise foetal deaths (stillbirths) and neonatal deaths (deaths within 28 days after birth). From 1972, statistics of stillbirths have been compiled on the basis of amended legislation in all States which provides for all foetal deaths of at least 20 weeks gestation or 400 grams weight to be registered. Previously, the statistics were based on a minimum of 28 weeks gestation. Neonatal deaths account for about 70 per cent of all deaths occurring within the first year of life.

In 1975 there were 4,744 perinatal deaths registered in Australia, which continued the decline in numbers and rates since 1972, the first year in which perinatal deaths were tabulated uniformly throughout Australia. Of these 4,744 deaths, 2,414 were foetal deaths and 2,330 were neonatal deaths.

The neonatal death rate continued its long historical decline, falling from 16.45 per 1,000 live births in 1951–55 to 10.00 per 1,000 in 1975. In the same period the total infant mortality rate fell from 23.34 to 14.27.

INFANT DEATHS(*a*)

	Number			*Per 1,000 live births*		
Period	*Less than 1 month*	*1–11 months*	*Total*	*Less than 1 month*	*1–11 months*	*Total*
Annual averages—						
1951–55	3,313	1,388	4,701	16.45	6.89	23.34
1956–60	3,353	1,330	4,683	15.07	5.98	21.05
1961–65	3,260	1,264	4,525	13.99	5.43	19.42
1966–70	3,141	1,208	4,349	13.07	5.03	18.10
1971–75	2,930	1,185	4,115	11.52	4.66	16.18
Annual totals—						
1971	3,364	1,413	4,777	12.17	5.11	17.29
1972	3,175	1,255	4,430	11.98	4.74	16.72
1973	2,927	1,158	4,085	11.82	4.68	16.49
1974	2,854	1,104	3,958	11.64	4.50	16.14
1975	2,330	995	3,325	10.00	4.27	14.27
males	1,378	574	1,952	11.50	4.79	16.29
females	952	421	1,373	8.41	3.72	12.13

(*a*) Excludes particulars of full-blood Aboriginals before 1966.

STILL BIRTHS(*a*)

Period	*Number*	*Per 1,000 of all births (still and alive)*
Annual average—		
1951–55	3,393	16.6
1956–60	3,293	14.6
1961–65	2,946	12.5
1966–70	2,563	10.6
1971–75	2,772	10.8
Annual totals—		
1971	2,519	9.0
1972(b)	3,089	11.5
1973	2,924	11.7
1974	2,914	11.8
1975	2,414	10.3

(*a*) Excludes particulars of full-blood Aboriginals before 1966. (*b*) Prior to 1972 based on foetal deaths of minimum 28 weeks of gestation. Since 1972 includes foetal deaths of at least 20 weeks of gestation or 400 grammes weight.

Life expectancy

Life tables are measures of life expectancy compiled from the death rates prevailing over a period. They form the basis for the *stationary population* which is the population that would result from a constant number of births each year which had been subject at each age to the life table mortality rates.

Since 1921, official life tables have been calculated from the separate male and female populations as enumerated at the census, and the deaths of the three years around the census. Earlier life tables were compiled for decennial periods 1881–90, 1891–1900 and 1901–10. Life tables have also been prepared in recent years using annual age estimates and the deaths of a particular year.

A key value in life tables is the expectation of life remaining at each age. Expectation of life—particularly at birth—improved at every age in the first half of this century. Since 1953–55 changes have been small. In the period 1901–10 to 1970–72, expectation of life at birth rose from 55.20 years to 67.90 for males and from 58.84 to 74.60 for females.

The inverse of the expectation of life at birth is sometimes called *the true death rate*. This rate is a measure of mortality unaffected by the current age structure of the population, and is therefore a better measure of change than crude death rates. Since 1953–55 there has been little change in the true death rate, indicating that most of the variation in crude rates has been due to changes in the population age structure.

TRUE DEATH RATES

	True death rate(a)(b)	
Period	*Males*	*Females*
1953–55 . . .	14.89	13.75
1960–62 . . .	14.72	13.48
1965–67 . . .	14.79	13.49
1970–72 . . .	14.73	13.40
1971	14.72	13.42
1972	14.66	13.34
1973	14.66	13.30
1974	14.70	13.33
1975	14.52	13.18

(*a*) Excludes particulars of full-blood Aboriginals before 1965–67. (*b*) Number of deaths per 1,000 in stationary population.

COMPLETE EXPECTATION OF LIFE ($\mathring{e}_x$) AT SELECTED AGES

	Males					*Females*				
Age (x)	*1901–10*	*1953–55*	*1960–62*	*1965–67(a)*	*1970–72(a)*	*1901–10*	*1953–55*	*1960–62*	*1965–67(a)*	*1970–72(a)*
0 . .	55.20	67.14	67.92	67.63	67.90	58.84	72.75	74.18	74.15	74.60
10 . .	53.53	59.53	59.93	59.50	59.66	56.38	64.78	65.92	65.75	66.08
20 . .	44.74	50.10	50.40	49.98	50.19	47.52	55.06	56.16	56.00	56.35
30 . .	36.52	40.90	41.12	40.72	40.94	39.33	45.43	46.49	46.34	46.67
40 . .	28.56	31.65	31.84	31.44	31.61	31.47	35.09	35.99	36.85	37.16
50 . .	21.16	22.92	23.13	22.76	22.87	23.69	27.03	27.92	27.83	28.10
60 . .	14.35	15.47	15.60	15.27	15.35	16.20	18.78	19.51	19.52	19.74
70 . .	8.67	9.59	9.77	9.52	9.51	9.96	11.62	12.19	12.23	12.39
80 . .	4.96	5.47	5.57	5.51	5.52	5.73	6.30	6.68	6.72	6.88

(*a*) Includes particulars of full-blood Aboriginals.

NOTE. $\mathring{e}_x$ = complete expectation of life at specified age

Marriages

The *Australian Marriage Act* 1961–1973 came into operation on 1 September 1963, placing the marriage laws throughout Australia on a uniform basis. Marriages may be celebrated by a minister of religion registered as an authorised celebrant, or by a district registrar or other person authorised by the Attorney-General. The minimum marriageable age is 18 years for males and 16 years for females. A judge or magistrate may, in exceptional circumstances, make an order authorising a male who has attained 16 years or a female who has attained 14 years to marry a person of marriageable age.

In 1975, 86 per cent of grooms and 87 per cent of brides were marrying for the first time; 3 per cent were widowers and 4 per cent widows; and 10 per cent had been divorced. The proportion of divorced persons was an increase on previous years.

Median age at first marriage declined during the 1950s and 1960s but has changed little recently. In 1975 it was 23.37 years for males and 20.97 for females. In 1975, 7.11 per cent of grooms and 30.28 per cent of brides married under the age of 20.

Marriage rates of the marriageable population provide a more exact measure of changing marriage patterns than the crude marriage rate. Marriage rates have been calculated for the three years around the census per thousand single, widowed and divorced males, females and persons. The rates for 1970–72 of 70.34 for males, 67.11 for females and 68.69 for persons contrast with much lower rates in earlier times, particularly in the case of males.

AGE AT MARRIAGE(*a*)

	Age								
Period	*Under 20*	*20–24*	*25–29*	*30–34*	*35–39*	*40–44*	*45–49*	*50 and over*	*Total*
				GROOM					
Annual averages—									
1951–55 . . .	2,375	30,194	20,662	7,772	4,033	2,650	1,778	3,637	73,102
1956–60 . . .	3,320	31,620	19,221	8,245	3,630	2,139	1,606	3,573	73,854
1961–65 . . .	5,278	38,845	20,344	7,495	3,799	2,154	1,498	3,837	83,250
1966–70 . . .	7,917	55,824	23,398	7,008	3,544	2,473	1,763	4,258	106,185
1971–75 . . .	8,427	59,058	24,374	7,408	3,425	2,376	1,970	4,765	111,802
Annual totals—									
1971 . . .	9,134	64,372	24,287	7,340	3,452	2,569	1,892	4,591	117,637
1972 . . .	8,746	60,934	24,860	7,190	3,257	2,317	1,986	4,739	114,029
1973 . . .	8,383	59,413	24,800	7,428	3,375	2,373	2,030	4,898	112,700
1974 . . .	8,472	58,059	24,415	7,408	3,356	2,268	1,943	4,752	110,673
1975 . . .	7,399	52,512	23,510	7,674	3,685	2,352	1,998	4,843	103,973
				BRIDE					
Annual averages—									
1951–52 . . .	15,231	33,597	11,272	4,873	3,015	2,040	1,363	2,211	73,102
1956–60 . . .	18,568	33,626	9,209	4,325	2,647	1,753	1,373	2,353	73,854
1961–65 . . .	23,454	39,370	8,760	3,553	2,416	1,715	1,367	2,616	83,250
1966–70 . . .	30,475	53,356	10,334	3,521	2,143	1,764	1,545	3,047	106,185
1971–75 . . .	34,319	51,846	12,363	4,280	2,279	1,733	1,621	3,362	111,802
Annual totals—									
1971	35,833	57,343	11,727	3,914	2,160	1,840	1,590	3,230	117,637
1972 . . .	34,848	54,057	12,262	3,953	2,222	1,665	1,640	3,382	114,029
1973 . . .	34,679	51,794	12,716	4,393	2,238	1,743	1,653	3,484	112,700
1974 . . .	34,753	50,162	12,530	4,397	2,252	1,665	1,582	3,332	110,673
1975 . . .	31,483	45,872	12,581	4,742	2,521	1,752	1,642	3,380	103,973

(*a*) Excludes particulars of full-blood Aboriginals before 1966.

MARITAL STATUS AT MARRIAGE(*a*)

	Grooms				*Brides*			
Period	*Bachelors*	*Widowers*	*Divorced*	*Total bride-grooms*	*Spinsters*	*Widows*	*Divorced*	*Total brides*
				NUMBER				
Annual averages—								
1951–55 . .	64,893	3,382	4,827	73,102	64,357	3,519	5,226	73,102
1956–60 . .	66,364	3,086	4,404	73,854	65,579	3,305	4,970	73,854
1961–65 . .	75,384	3,063	4,803	83,250	74,962	3,218	5,070	83,250
1966–70 . .	96,438	3,320	6,430	106,188	96,341	3,568	6,279	106,188
1971–75 . .	99,203	3,473	9,126	111,802	99,287	3,810	8,705	111,802
Annual totals—								
1971 . . .	106,250	3,604	7,783	117,637	106,337	3,833	7,467	117,637
1972 . . .	102,240	3,472	8,317	114,029	102,106	3,868	8,055	114,029
1973 . . .	99,741	3,614	9,345	112,700	99,950	3,906	8,844	112,700
1974 . . .	97,872	3,367	9,434	110,673	98,031	3,764	8,878	110,673
1975 . . .	89,912	3,308	10,753	103,973	90,010	3,681	10,282	103,973
				MEDIAN AGES				
Annual averages—								
1951–55 . .	25.00	54.27	38.90	25.68	22.05	45.34	34.58	22.68
1956–60 . .	24.73	56.50	39.25	25.37	21.57	47.61	35.44	21.99
1961–65 . .	24.16	56.60	40.41	24.69	21.32	49.25	36.63	21.67
1966–70 . .	23.54	56.69	39.75	23.94	21.19	50.05	36.08	21.50
1971–75 . .	23.33	57.78	37.25	23.86	20.99	51.13	33.04	21.43
Annual totals—								
1971 . . .	23.36	56.92	38.06	23.78	21.05	50.62	34.26	21.39
1972 . . .	23.33	57.80	38.07	23.80	21.02	51.14	33.90	21.41
1973 . . .	23.31	58.06	36.97	23.85	20.97	51.31	31.18	21.41
1974 . . .	23.28	58.13	36.75	23.83	20.92	51.21	33.02	21.37
1975 . . .	23.37	57.99	36.40	24.06	20.97	51.35	32.82	21.55

(*a*) Excludes particulars of full-blood Aboriginals before 1966.

MARRIAGE RATES OF MARRIAGEABLE POPULATION(*a*)

Censal period	Per thousand single, widowed and divorced, aged 15 and over: Males rate	Females rate	Persons rate	Per thousand persons: Rate	Index
1880–82 . . .	39.38	63.56	48.63	7.62	100
1890–92 . . .	36.50	35.50	44.04	7.28	96
1900–02 . . .	37.32	48.39	42.14	7.27	95
1910–12 . . .	45.80	55.33	50.12	8.74	115
1920–22 . . .	54.00	58.08	55.97	8.75	115
1932–34 . . .	41.70	44.13	42.88	7.12	93
1946–48 . . .	71.89	70.60	71.24	10.15	133
1953–55 . . .	64.20	66.46	65.32	7.92	104
1960–62 . . .	61.50	63.07	62.27	7.34	96
1965–67 . . .	68.06	68.04	68.05	8.32	109
1970–72 . . .	70.34	67.11	68.69	9.09	119

(*a*) Excludes particulars of full-blood Aboriginals before 1965–67.

Divorce

The *Matrimonial Causes Act* of 1959-66 provided for dissolution of marriage on one or more of 14 grounds. It also provided for nullity of marriage and for judicial separation. This Act, which came into operation in 1961, replaced separate State and Territory legislation. The *Family Law Act* 1975, which came into operation on 5 January 1976, provides for a single ground for divorce—irretrievable breakdown of marriage—and for nullity of marriage on the ground that the marriage is void.

With the exception of a preliminary total figure for divorces and dissolutions granted under Family Law legislation during 1976, the statistics presented in the tables relate to divorces granted under the Matrimonial Causes Act or under previous State or Territory legislation. The first table includes all types of divorce: dissolution, nullity and judicial separation. The remaining tables relate to dissolution only.

When comparing the number and rate of decrees granted from year to year it should be borne in mind that the availability of judges to hear petitions lodged can affect the number of decrees granted. A rise in one year may be due wholly or in part to the clearing of a backlog of cases from an earlier year.

Duration of Marriage, Age at Marriage and Age at Divorce

Marriages which were dissolved in 1975 lasted on average 11.40 years. Of the 24,257 marriages which were dissolved, 9.90 per cent had lasted less than five years, 52.50 between five and fourteen years and 37.60 more than fifteen years.

The median age at marriage of divorcing husbands had been 23.49 years and of wives 21.19 years. Of husbands, 11.61 per cent had been aged under 20 at marriage and 54.94 per cent aged 20–24; of wives 39.45 per cent had been aged under age 20 and 44.10 per cent between 20–24.

At time of divorce, the median age of husbands was 36.31 years and of wives 33.40 years. A total of 25.44 per cent of husbands and 37.23 per cent of wives were aged under 30 years when the marriage was dissolved.

Children of the Marriage

For the years to which the Matrimonial Causes Act have applied, children of the marriage are defined as living children under the age of 21 at the time of the petition. Under previous legislation there were differences between States.

In 1975 there were no children (under 21 years at the time of the petition) involved in 32 per cent of the dissolutions granted, 23 per cent involved one child; 25 per cent two children; and 20 per cent three or more children.

DIVORCE: DISSOLUTION, NULLITY AND JUDICIAL SEPARATION(*a*)

Period	*Petitions filed*	*Petitions granted*
Annual averages—		
1951–55	8,572	7,159
1956–60	8,310	6,788
1961–65	9,955	7,611
1966–70	13,089	10,738
1971–75	22,704	17,405
Annual totals—		
1971	17,887	13,002
1972	19,088	15,707
1973	21,308	16,266
1974	26,855	17,744
1975	28,383	24,307
Dissolution	28,308	24,257
Nullity	58	39
Judicial separation	10	11
1976	n.a.	(p)60,775

(*a*) Excluded particulars of full-blood Aboriginals before 1966.

DISSOLUTION OF MARRIAGE, YEARS MARRIED(*a*)

Period	*Years married*						*Total*	*Median duration of marriage*
	0–4	*5–9*	*10–14*	*15–19*	*20–24*	*25 and over(b)*		
Annual averages—								
1951–55	604	2,356	1,729	1,012	645	745	7,091	11.46
1956–60	486	2,157	1,726	1,075	624	644	6,712	11.74
1961–65	501	1,999	1,747	1,329	926	1,040	7,542	13.56
1966–70	903	2,937	2,146	1,685	1,429	1,581	10,681	13.41
1971–75	1,693	5,478	3,432	2,398	1,930	2,417	17,349	11.92
Annual totals—								
1971	1,200	3,880	2,594	1,854	1,605	1,814	12,947	12.46
1972	1,568	4,828	3,002	2,222	1,831	2,204	15,655	12.14
1973	1,624	5,209	3,121	2,181	1,793	2,268	16,196	12.03
1974	1,672	5,612	3,571	2,382	1,941	2,510	17,688	11.80
1975	2,401	7,861	4,873	3,353	2,481	3,288	24,257	11.40

(*a*) Excludes particulars of full-blood Aboriginals before 1966. (*b*) Includes 2 not stated 1974, 1 not stated 1975.

DISSOLUTION OF MARRIAGE, NUMBER OF CHILDREN(*a*)

Period	*Number of children to the marriage*						*Total marriages*	*Total children*	*Average number of children*
	0	*1*	*2*	*3*	*4*	*5 and over*			
Annual averages—									
1951–55	2,412	2,141	1,453	607	259	218	7,091	9,197	1.30
1956–60	2,318	1,810	1,466	657	278	190	6,720	8,946	1.33
1961–65	2,834	1,950	1,611	753	279	143	7,568	9,347	1.24
1966–70	3,628	2,656	2,428	1,212	497	261	10,681	14,588	1.37
1971–75	5,628	4,062	4,200	2,147	874	438	17,349	24,840	1.43
Annual totals—									
1971	4,212	3,180	2,973	1,601	619	362	12,947	18,451	1.43
1972	5,198	3,690	3,669	1,885	817	396	15,655	22,172	1.42
1973	5,245	3,834	3,894	2,025	818	380	16,196	23,078	1.42
1974	5,615	4,138	4,431	2,194	863	447	17,688	25,505	1.44
1975	7,870	5,467	6,031	3,029	1,254	606	24,257	34,992	1.44

(*a*) Excludes particulars of full-blood Aboriginals before 1966.

DISSOLUTION OF MARRIAGE, AGE AT MARRIAGE(*a*)

Period	*Age at marriage (years)* Under 20	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60 and over	Not stated	Total marriages	Median age
HUSBAND													
Annual averages—													
1961–65 .	491	3,521	1,983	753	363	187	101	56	29	26	32	7,542	24.64
1966–70 .	946	5,271	2,567	932	448	238	129	73	37	37	3	10,681	24.17
1971–75 .	1,856	9,354	3,686	1,210	552	292	174	94	51	46	34	17,349	23.64
Annual totals													
1971 .	1,308	6,733	2,903	997	471	238	141	80	36	37	3	12,947	23.83
1972 .	1,591	8,415	3,428	1,144	472	276	143	99	49	37	1	15,655	23.71
1973 .	1,667	8,717	3,416	1,132	538	275	156	92	48	49	106	16,196	23.66
1974 .	1,899	9,581	3,758	1,248	555	274	167	81	42	39	44	17,688	23.61
1975 .	2,816	13,326	4,924	1,528	724	396	262	119	79	66	17	24,257	23.49
WIFE													
Annual averages—													
1961–65 .	2,347	3,265	1,026	430	218	112	56	29	15	10	34	7,542	22.15
1966–70 .	3,781	4,614	1,231	477	263	149	80	42	23	18	3	10,681	21.69
1971–75 .	6,662	7,710	1,630	592	317	185	108	58	27	24	35	17,349	21.29
Annual totals—													
1971 .	4,926	5,617	1,324	490	268	133	98	54	21	14	2	12,947	21.38
1972 .	5,968	6,959	1,522	551	307	151	99	50	19	24	5	15,655	21.33
1973 .	6,111	7,253	1,493	552	302	180	102	51	26	23	103	16,196	21.38
1974 .	6,734	8,025	1,614	574	322	196	81	49	33	17	43	17,688	21.30
1975 .	9,569	10,698	2,199	792	388	265	162	85	36	42	21	24,257	21.19

(*a*) Excludes particulars of full-blood Aboriginals before 1966.

INTERNATIONAL MIGRATION

Statistics of overseas arrivals and departures are compiled from incoming and outgoing passenger cards which are collected from all travellers under the *Migration Act* 1958–1973. Earlier statistics were obtained from passenger lists required under various Acts.

Since 1924, overseas travellers have been classified into two principal categories which distinguish movements for short terms from movements for longer periods (including permanent movements). Revised questions for travellers were introduced in 1958 and again in 1974. The 1958 revision enabled the separation, after 1959, of permanent from other long-term movements and also the identification of former settlers departing. The 1974 revisions improved the classification without change of principle. The principal categories of overseas movement are:

Permanent —consists of persons arriving with the stated intention of settling permanently in Australia (settlers), and Australian residents (including former settlers) departing with the stated intention of residing permanently abroad. Before 1974, former settlers were not so classified unless they had spent at least 12 months in Australia.

Long-term—consists of overseas visitors arriving and Australian residents departing with the stated intention of staying in Australia or abroad respectively for 12 months or more; and visitors departing and residents returning who have stayed in Australia or abroad respectively for 12 months or more. Until 1974, Australian residents were classified as long-term only if their time spent abroad included a period of 12 months in any one country. Their classification is now governed solely by their total absence from Australia.

Short-term—consists of overseas visitors arriving and Australian residents departing whose intended or actual period of stay in Australia or abroad respectively is less than twelve months.

The classification of overseas movements is based on statements made by the traveller on arrival in or departure from Australia. The statistics represent the travellers' intention at the time of arrival or departure; travellers may subsequently change their intentions, and this must be borne in mind in interpreting statistics.

A comparison of overseas arrivals and departures in 1976 with those in 1950 indicates a present predominance of tourists, thereby also accounting for the great increase in the volume of travel, now mostly by air. In 1950 there were 250,404 arrivals and 97,899 departures, compared with 1,641,636 arrivals (up 656 per cent) and 1,602,156 departures (up 1637 per cent) in 1976. Total arrivals remained at the 1950 levels until the early 1960s and total departures increased only slowly. In 1950, short-term movement accounted for 30.3 per cent of arrivals and 78.7 per cent of departures. The percentages had increased to 91.4 per cent and 92.8 per cent respectively in 1976. An upsurge of international tourism, particularly by Australian residents, occurred in the 1970s. The volume of sea travel has changed little over the period (the figures exclude pleasure cruises in the south west Pacific beginning and ending in Australia), so that in 1976 only 2.4 per cent of arrivals and 2.5 per cent of departures had travelled by ship. Net gain, i.e. the excess of total arrivals over total departures, until recently provided a satisfactory measure of the population gain from international migration. In recent years, however, distortions arising from seasonality of short-term arrivals and departures have become very large. For the purpose of estimating the population of Australia and the States and Territories, therefore, the migration component of population growth has been measured since 1 July 1971 by reference to permanent and long term movements only.

OVERSEAS ARRIVALS AND DEPARTURES: AUSTRALIA 1951-1976

ARRIVALS

	Permanent and long-term movement				*Short-term movement*				
	Per-manent	*Long-term*		*Total permanent and long-term arrivals*		*Overseas visitors arriving*			
Period	*Settlers arriving*	*Australian residents returning*	*Overseas visitors arriving*		*Australian residents returning*	*In transit*	*Other*	*Total*	*Total arrivals*
Annual averages—									
1951–55 . .	n.a.	n.a.	n.a.	114,018	43,390	15,565	32,600	48,165	205,573
1956–60 . .	n.a.	n.a.	n.a.	123,153	61,922	16,841	50,903	67,744	252,819
1961–65 . .	115,198	22,258	14,770	152,226	117,041	28,685	102,776	131,461	400,727
1966–70 . .	160,813	36,148	24,481	221,442	259,700	41,476	255,800	297,275	778,417
1971–75 . .	109,687	57,751	26,254	193,692	631,446	74,356	401,569	475,925	1,301,063
Annual totals—									
1971 . .	155,525	47,782	30,500	233,807	412,598	64,727	367,666	432,393	1,078,798
1972 . .	112,468	54,278	26,559	193,305	490,962	77,592	348,811	426,403	1,110,670
1973 . .	105,003	65,021	27,370	197,394	620,842	73,074	399,050	472,124	1,290,360
1974 . .	121,324	63,320	26,984	211,628	752,218	78,166	454,517	532,683	1,496,529
1975 . .	54,117	58,352	19,858	132,327	880,609	78,222	437,801	516,023	1,528,959
1976 . .	58,317	59,875	23,312	141,504	968,265	66,462	465,406	531,868	1,641,636

DEPARTURES

	Permanent and long-term movement						*Short-term movement*		
	Permanent			*Long-term*		*Total permanent and long-term departures*			
Period	*Former settlers departing*	*Other residents departing*	*Total permanent departures*	*Australian residents departing*	*Overseas visitors departing*		*Australian residents departing*	*Overseas visitors departing*	*Total departures*
Annual averages—									
1951–55 . .	n.a.	n.a.	n.a.	n.a.	n.a.	31,102	42,596	49,111	122,808
1956–60 . .	n.a.	n.a.	n.a.	n.a.	n.a.	42,161	61,224	68,430	171,815
1961–65 . .	9,698	6,798	16,496	37,905	12,719	67,120	118,624	135,006	320,749
1966–70 . .	23,191	8,752	31,942	56,219	14,349	102,511	258,824	308,321	669,656
1971–75 . .	26,622	12,032	38,654	66,430	22,984	128,067	647,608	479,015	1,254,690
Annual totals—									
1971 . .	29,449	11,673	41,122	67,699	21,433	130,254	413,917	450,022	994,193
1972 . .	33,172	12,709	45,881	66,853	24,251	136,985	504,519	441,320	1,082,824
1973 . .	30,325	13,105	43,430	64,964	21,506	129,900	638,141	481,901	1,249,942
1974 . .	21,849	11,902	33,751	66,228	24,401	124,380	769,650	515,378	1,409,408
1975 . .	18,315	10,769	29,084	66,405	23,327	118,816	911,815	506,454	1,537,084
1976 . .	16,815	9,918	26,733	68,526	20,631	115,890	973,799	512,468	1,602,156

EXCESS OF ARRIVALS OVER DEPARTURES

	Permanent and long-term movement							*Short-term movement*			
	Permanent			*Long-term*			*Total permanent and long-term*	*Short-term*			
Period	*Settlers*	*Others*	*Total*	*Australian residents*	*Overseas visitors*	*Total long-term*		*Australian residents*	*Overseas visitors*	*Total short-term*	*Total*
Annual averages—											
1951–55	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	82,916	794	−946	−151	82,765
1956–60	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	80,992	699	−686	12	81,004
1961–65	105,500	−6,798	98,702	−15,648	2,051	−13,597	85,106	−1,583	−3,544	−5,127	79,978
1966–70	137,622	−8,752	128,870	−20,071	10,132	−9,939	118,931	876	−11,046	−10,169	108,762
1971–75	83,065	−12,032	71,034	−8,679	3,271	−5,408	65,625	−16,163	−3,090	−19,253	46,373
Annual totals—											
1971 .	126,076	−11,673	114,403	−19,917	9,067	−10,850	103,553	−1,319	−17,629	−18,948	84,605
1972 .	79,296	−12,709	66,587	−12,575	2,308	−10,267	56,320	−13,557	−14,917	−28,474	27,846
1973 .	74,678	−13,105	61,573	57	5,864	5,921	67,494	−17,299	−9,777	−27,076	40,418
1974 .	99,475	−11,902	87,573	−2,908	2,583	−325	87,248	−17,432	17,305	−127	87,121
1975 .	35,802	−10,769	25,033	−8,053	−3,468	−11,521	13,512	−31,207	9,568	−21,639	−8,126
1976 .	41,502	−9,918	31,584	−8,653	2,681	−5,972	25,611	−5,534	19,400	13,864	39,480

Migration to Australia

Migration to Australia is regulated by the *Migration Act* 1958-1973 which came into force on 1 June 1959. Any person entering Australia after the commencement of the Act without having been granted an entry permit or who is not within an exempted class is a prohibited immigrant. Exempted persons include diplomatic, consular and trade representatives of other countries, and seamen who enter with leave while their ships are in Australian ports.

Prior to January 1975, citizens of the United Kingdom and Ireland were able to travel to Australia without obtaining any authority to do so; but, with the introduction of a non-discriminatory policy, they are now required to meet the same requirements as all other prospective migrants. Because of reciprocal arrangements on travel between the Australian and New Zealand governments, New Zealanders may come to Australia and Australian citizens may enter New Zealand as they wish.

Immigration has contributed substantially to Australia's post war population growth. In the post-war years, some 3.35 million migrants have arrived, of which an estimated 80 per cent settled. They and those of their children born in Australia have been responsible for about half of Australia's post war population growth.

Over the last few years there has been a substantial fall in immigration. Annual migrant intake fell from a peak of 185,000 in 1969-70 to a 30-year record low of 52,000 in 1975–76. Each year Australia loses a proportion of its previous migrant intakes. Additionally, partly as a result of the high international mobility of professional and skilled workers, substantial numbers of Australians take up job opportunities overseas.

These factors, together with low levels of natural increase, make it appear that the population in the year 2001 will be well below the previously projected level of 20 million. The size of Australia's population in the year 2001 will be dependent, in large part, on the size of immigration intakes over the remainder of the century, and these, in turn, will be affected by policy as well as by economic and social factors.

Because of the high level of unemployment in Australia, entry for permanent settlement is at present restricted to the spouses, dependent children and parents of Australian residents and those who possess skills in an occupation for which there is a substantial unfilled demand. However, fiancees and fiances may be considered, as well as other categories where compelling compassionate or humanitarian consideration exist, e.g. refugees.

The granting of assisted passages is restricted to the spouses and minor dependent children of Australian residents, and to those possessing occupational skills that are in short supply.

SETTLER ARRIVALS

Period	Assisted	Unassisted	Total
Annual averages—			
1961–65	67,426	47,772	115,198
1966–70	107,496	53,317	160,813
1971–75	58,176	51,511	109,687
Annual totals—			
1971	103,811	51,714	155,525
1972	63,710	48,758	112,468
1973	49,822	55,181	105,003
1974	52,194	69,130	121,324
1975	21,345	32,772	54,117
1976	15,840	42,477	58,317

SETTLER ARRIVALS BY AGE

	Age in years						
Period	*0–4*	*5–14*	*15–24*	*25–44*	*45–64*	*65 and over*	*All ages*
			MALES				
Annual averages—							
1961–65	6,831	10,532	15,379	21,776	4,535	919	59,972
1966–70	10,542	15,434	21,184	32,272	5,809	1,243	86,484
1971–75	7,411	10,009	12,878	20,326	3,921	1,247	55,792
Annual totals—							
1971	10,053	14,961	20,362	29,582	5,381	1,193	81,532
1972	7,274	9,843	14,268	20,754	4,314	1,370	57,823
1973	7,455	9,227	12,350	19,169	3,859	1,207	53,267
1974	8,149	11,048	13,397	23,452	4,317	1,402	61,765
1975	4,124	4,968	4,011	8,673	1,735	1,063	24,575
			FEMALES				
Annual averages—							
1961–65	6,333	9,772	14,248	18,262	5,135	1,476	55,226
1966–70	9,909	14,435	17,751	24,132	6,240	1,861	74,328
1971–75	6,952	9,301	13,685	17,445	4,787	1,725	53,895
Annual totals—							
1971	9,605	13,841	18,978	23,751	6,037	1,781	73,993
1972	6,736	9,278	14,394	17,295	5,114	1,828	54,645
1973	6,983	8,729	13,123	16,449	4,728	1,724	51,736
1974	7,527	9,988	14,940	20,053	5,250	1,801	59,559
1975	3,908	4,671	6,990	9,676	2,807	1,491	29,544
			PERSONS				
Annual averages—							
1961–65	13,164	20,305	29,627	40,038	9,670	2,395	115,198
1966–70	20,451	29,869	38,935	56,405	12,049	3,104	160,813
1971–75	14,363	19,311	26,563	37,771	8,708	2,972	109,687
Annual totals—							
1971	19,658	28,802	39,340	53,333	11,418	2,974	155,525
1972	14,010	19,121	28,662	38,049	9,428	3,198	112,468
1973	14,438	17,956	25,473	35,618	8,587	2,931	105,003
1974	15,676	21,036	28,337	43,505	9,567	3,203	121,324
1975	8,032	9,639	11,001	18,350	4,542	2,554	54,117

SETTLER ARRIVALS BY MARITAL STATUS

Period	*Never married*				
	Under 15 years	*15 years and over*	*Married*	*Widowed and divorced*	*Total*
		MALES			
Annual averages—					
1961–65	17,364	20,190	21,800	618	59,972
1966–70	25,976	25,742	33,668	1,098	86,484
1971–75	17,420	14,750	22,595	1,027	55,792
Annual totals—					
1971	25,014	23,231	32,134	1,153	81,532
1972	17,117	16,278	23,263	1,165	57,823
1973	16,682	14,067	21,374	1,144	53,267
1974	19,197	15,508	25,829	1,231	61,765
1975	9,092	4,664	10,377	442	24,575
		FEMALES			
Annual averages—					
1961–65	16,105	13,245	23,377	2,500	55,226
1966–70	24,344	12,530	34,125	3,330	74,328
1971–75	16,246	9,752	25,055	2,842	53,895
Annual totals—					
1971	23,446	13,175	34,172	3,200	73,993
1972	16,014	10,286	25,337	3,008	54,645
1973	15,712	8,916	23,970	3,138	51,736
1974	17,498	10,863	28,183	3,015	59,559
1975	8,559	5,521	13,614	1,849	29,544
		PERSONS			
Annual averages—					
1961–65	33,468	33,435	45,177	3,118	115,198
1966–70	50,320	38,272	67,793	4,427	160,813
1971–75	33,666	24,502	47,651	3,869	109,687
Annual totals—					
1971	48,460	36,406	66,306	4,353	155,525
1972	33,131	26,564	48,600	4,173	112,468
1973	32,394	22,983	45,344	4,282	105,003
1974	36,695	26,371	54,012	4,246	121,324
1975	17,651	10,185	23,991	2,290	54,117

Accommodation of migrants

Migrants must be assured of accommodation on arrival, unless they have sufficient funds to be independent. For those migrants nominated by relatives or friends, this initial accommodation has usually been in private homes. Most of the assisted migrants nominated by the Commonwealth Government are provided with transitory accommodation in migrant hostels operated by Commonwealth Hostels Ltd, a non-profit-making Government-sponsored company. These hostels provide a range of services to help migrants to settle in Australia, including child minding centres, English language classes, youth recreation activities, welfare officers and assistance in obtaining permanent accommodation.

The total capacity of hostels is about 10,000. A further 1,800 migrants nominated by the Commonwealth Government can be accommodated in self-contained flats. Hostel accommodation is available to families for up to 12 months, while tenancies of flats are limited to six months. Childless couples and single persons are accepted in hostels for up to six months and three months respectively. Extensions of stay are granted in extenuating circumstances.

British assisted migrants nominated by State Governments are, in most cases, provided with initial accommodation in reception centres operated by the State authorities.

Settlement services

Migrant welfare, settlement and integration

The Department of Social Security provides direct assistance to migrants through its migrant welfare staff and the Telephone Interpreter Service, and indirect help through support to voluntary agencies.

The migrant welfare staff consists of an establishment of 31 professional social workers and 64 trained welfare officers, most of whom have competence in languages additional to English. They are deployed throughout all capital cities and some other centres and work in co-operation with State and local government authorities and voluntary organisations. Migrant welfare staff members provide specialised information, counselling and, where appropriate, professional social work services for migrants experiencing settlement problems, and refer clients as necessary to other relevant authorities and agencies.

In addition to its normal migrant welfare services, the Department co-ordinates the provision by various authorities and agencies of special settlement and orientation assistance for groups of newly-arrived refugees and similar groups.

Under the *Immigration (Guardianship of Children) Act*, the Minister for Social Security is the legal guardian of certain classes of immigrant children entering Australia who are neither accompanied by nor joining an adult relative. Most of the Minister's functions under the Act have been delegated to the principal officers of the State and Territory child welfare authorities.

The Department of Social Security is responsible for the development, in consultation with State and Territory child welfare authorities and other relevant Commonwealth Government Departments, of policy in relation to inter-country adoptions. A Commonwealth/State Inter-Departmental Standing Committee has been established for this purpose.

The Telephone Interpreter Service was introduced in 1973 to help overcome communication problems by providing over the telephone a general interpreting, information and advisory service to migrants in a wide range of languages, and to assist the community generally in communicating with non-English speakers, especially in emergency situations. The service commenced in Sydney and Melbourne in February 1973, and now operates in all mainland State capitals. During the financial year ending 30 June 1977, a total of 99,816 calls was received, making a total of 296,000 since February 1973.

In addition to providing direct services for migrants, the Department administers a grant scheme whereby financial assistance is provided to selected community welfare agencies to enable them to employ qualified social workers or welfare workers to help migrants overcome serious settlement problems. As at the end of June 1977, 45 agencies were approved to receive grants, and 38 social workers and 8 welfare workers were employed.

The Department also directly funds the eight Good Neighbour Councils operating in the several States and Territories. The Councils are autonomous voluntary organisations with which are associated the many community groups and people throughout Australia whose common objective is to facilitate the integration of migrants. As at 30 June 1977, these grants overall enabled Councils to pay the administrative costs involved in maintaining principal offices in the capital cities, 15 regional offices and 8 sub-offices, as well as employing 76 staff. In that year, the Councils had active contact with over 1,000 organisations and controlled a network of more than 500 branches with 6,500 representatives in regional centres.

The Department recognises the importance of national group organisations in fostering resettlement. It has published a directory of such organisations in Australia and has distributed copies free of charge to interested persons and relevant institutions. Systematic updating is maintained with the aid of a computer which is being linked with a foreign language information distribution service.

The Department also undertakes research into the ethnic background of various individual national groups, and into their distribution and settlement experience in Australia. On the basis of this research, the Department publishes ethnic background papers on selected migrant source countries for distribution to welfare and other workers involved in the migrant settlement process in order to promote understanding and tolerance of cultural differences.

Migrant education

Notes on this aspect are included in Chapter 12.

Refugees

Australia has opened its door to many refugees. Of almost 1 million people settled by the International Refugee Organisation between 1947 and 1952, Australia accepted 170,700, a total exceeded only by the United States of America. Since the early 1950s, crises have occurred which have increased the complexity of the world refugee problem, including the Hungarian uprising of 1956, its counterpart in Czechoslovakia in 1968, the continuing flow of refugees from Yugoslavia up to the late 1960s and early 1970s, the expulsion of Asians from Uganda in 1972, the events following the change of government in Chile in 1973, the fighting in Cyprus and the Lebanon, and the end of the war in Vietnam, Laos and Cambodia in 1975. Australia's total intake was 4,374 in 1975-76 and 8,124 in 1976-77.

REFUGEE ARRIVALS

Period	*Assisted*	*Other*	*Total*
Annual average—			
1951-55	3,515	n.a.	n.a.
1956-60	5,904	n.a.	n.a.
1961-65	1,799	n.a.	n.a.
1966-70	7,446	n.a.	n.a.
1971-75	2,773	7,776	10,549
Annual totals—			
1971	7,527	13,846	21,373
1972	2,324	7,478	9,802
1973	1,473	7,241	8,714
1974	1,686	7,013	8,699
1975	853	3,302	4,155
1976	865	3,231	4,096

Citizenship

The grant of citizenship is controlled by the *Australian Citizenship Act* 1948. Citizenship may be acquired by birth in Australia, by birth abroad to Australian parents, or by grant of citizenship to persons resident in Australia under conditions prescribed in the Act.

An amendment to the legislation in 1973 meant that all persons are now eligible for the grant of Australian citizenship provided that they have lived in Australia for at least three years, are of good character, have an adequate knowledge of English and of the responsibilities and privileges of citizenship, and declare that their intention is to reside permanently in Australia.

PERSONS GRANTED AUSTRALIAN CITIZENSHIP

Period	*Number*
Annual averages—	
1951-55	6,729
1956-60	44 412
1961-65	43,823
1966-70	40,934
1971-75	61,182
Annual totals—	
1971	38,799
1972	38,402
1973	57,102
1974	87,549
1975	84,059
1976	118,189

Sources

Comprehensive statistics on aspects of demography are in the following publications of the Australian Bureau of Statistics:

1976 Census publications including: *Population of States and Territories Adjusted for Under-Enumeration as Shown by Post Enumeration Survey* (2409.0); *Characteristics of the Population (Preliminary) Local Government Areas: All States, Territories* (2201.0 to 2208.0); *Characteristics of the Population (Preliminary): States* (2209.0); *Summary of Population and Dwellings: All States, Territories and Australia* (2421.0 to 2429.0); *Characteristics of Population and Dwellings in L.G.A.s* (2451.0 to 2458.0); and *Characteristics of Population and Dwellings in Electoral Divisions* (2459.0).

Australian Life Tables (3305.0).

Births (3301.0).

Deaths (3302.0).

Demography (3101.0).

Divorces (3307.0).

Estimated Age Distribution of the Population (3201.0).

Internal Migration (3408.0).

Marriages (3306.0).

Overseas Arrivals and Departures (3401.0, 3402.0, 3404.0).

Overseas Arrivals and Departures (3403.0).

Perinatal Deaths (3304.0).

Population and Vital Statistics (Preliminary) (3211.0).

Population: Principal Cities and Towns (3202.0).

Projections of the Population of Australia (3204.0).

Summary of Vital and Population Statistics (3202.0).

CHAPTER 7

PRICES AND HOUSEHOLD EXPENDITURE

RETAIL PRICES AND PRICE INDEXES

Retail prices of food and groceries and average rentals of houses have been collected by the Commonwealth Statistician for the years extending back to 1901 and, in some cases, by the Statisticians of various States for earlier years.

Retails prices of a more extensive range of commodities (including clothing) and certain services in common demand have been ascertained at frequent and regular intervals since 1923. (Comparable information was ascertained for the month of November in each year from 1914 to 1922.) The range of items for which retail prices data is obtained was considerably expanded in 1948 and in later years. Average retail prices of certain food and grocery items in the relevant periods were published in the annual *Labour Report* (now discontinued).

An explanation of the nature and purposes of retail price indexes is given in the various editions of the annual *Labour Report*, together with further particulars of indexes current at the time. The current retail price index, the Consumer Price Index, was published for the first time in August 1960 and was compiled retrospectively to the September quarter 1948. A description of the Consumer Price Index is given below.

The Consumer Price Index

Introduction

The Consumer Price Index (CPI) measures quarterly changes in the price of a 'basket' of goods and services which account for a high proportion of expenditures by metropolitan wage and salary earner households. This 'basket' covers a wide range of goods and services, arranged in the following groups: Food; Clothing; Housing; Household equipment and operation; Transportation; Tobacco and alcohol; Health and personal care; and Recreation. Each group is, in turn, divided into sub-groups.

Index numbers at the *Group* and *All Groups* levels are published each quarter for each State capital city and Canberra, for the weighted average of six State capital cities and for the weighted average of seven capital cities. *Sub-group index numbers* are also published for the weighted average of six State capital cities.

Items in the Food Group of the CPI are priced each month and the Food Group Index is compiled and published monthly. (Indexes for other groups are not compiled monthly.)

Index population

The CPI is designed to measure price changes affecting a high proportion of *metropolitan wage and salary earner households*. *Wage and salary earner households* are defined as those households which obtain at least three-quarters of their total income from wages and salaries. *Metropolitan* households are those which occur in the State capital cities or in Canberra. The CPI population group covers most metropolitan wage and salary earner households, but it excludes the top 10 per cent (in terms of income) of such households.

Weighting pattern

There are 105 expenditure classes (i.e. groupings of like items) within the current CPI and each expenditure class has its own weight, or measure of relative importance. In calculating the index, price changes for the various expenditure classes are combined using these weights.

Changes in the weighting pattern have been made at approximately five-yearly intervals to take account of changes in household spending patterns. The CPI, in fact, comprises nine series of price indexes which have been linked to form a continuous series. The ninth series (i.e. the current series) was introduced as from the September quarter 1976 and its weighting pattern is based on estimated expenditures in 1974–75 obtained from the first household expenditure survey conducted by the ABS. A broad outline of the weighting pattern was published in the December quarter 1976 issue of *Consumer Price Index* (6401.0) and a detailed weighting pattern is available from the ABS on request.

The CPI 'basket' of goods and services covers items which are considered representative of metropolitan household spending habits and whose prices can be associated with an identifiable and specific quantity of a commodity or service. For instance, price changes for a given quantity and quality of bread or refrigerator can be measured and included in the CPI. Income taxes and personal savings, on the other hand, do not form part of the CPI because they cannot be clearly associated with the purchase of a specific quantity of a good or service.

Price collection

Since the CPI is designed to measure the impact of changing prices on metropolitan wage and salary earner households, price movements are monitored in the kinds of retail outlets or other establishments where such households would normally purchase goods and services. This involves collecting prices from many sources including supermarkets, department stores, footwear stores, restaurants, garages, dental surgeries and hairdressers. Items such as bus, rail and air fares, electricity and gas charges, telephone charges and local authority rates are collected from the appropriate authorities. Information on rents is obtained from property management companies. In total, around 80,000 separate price quotations are collected each quarter.

Food items are priced at the middle of each month except in the case of some fresh items (fruit› vegetables and fish) where prices are collected more frequently and averaged to obtain monthly prices. Most of the other CPI items are priced quarterly, usually at the middle of the mid-month of the quarter (February, May, August and November). However, to smooth out collection workloads, some items are collected during the first month of each quarter. Some items, such as local authority rates, need to be priced only once a year.

The prices used in the CPI are those that any member of the public would have to pay on the pricing day to purchase the specified good or service. Any sales or excise taxes which the consumer must pay when purchasing specific items are included in the CPI price. Sale prices, discount prices and 'specials' are reflected in the CPI so long as the items concerned are of normal quality (i.e. not damaged or shop soiled) and are offered for sale in reasonable quantities. To ensure that the price movements reflect the experience of the bulk of the metropolitan population, the brands and the varieties of the items which are priced are generally those which sell in greatest volume.

Changes in quality

The CPI aims to measure the price change of a constant basket of goods and services over time. For this reason, efforts are made to ensure that identical or equivalent items are priced in successive time periods. This involves evaluating changes in the quality of goods and services included in the index, and removing the effects of such changes so that the index reflects only the price change.

Periodic revision of the CPI

The CPI is periodically revised in order to ensure it continues to reflect current conditions. CPI revisions have usually been carried out at approximately five-yearly intervals. Following each revision the new list of items and weights (i.e. the new CPI basket) is linked to the previous series to form one continuous series. The process of linking ensures that the continuous series reflects only price variations and not differences in costs of the old and new baskets.

Earlier CPI series

The index has been compiled for each quarter from the September quarter 1948. The above description of the CPI refers to the ninth series which was introduced as from the September quarter 1976. A description of earlier CPI series is contained in the *Labour Report* No. 58, 1973, and in previous issues of the Year Book.

CONSUMER PRICE INDEX: ALL GROUPS INDEX SIX STATE CAPITAL CITIES AND CANBERRA

(*Base of each index: Year* 1966–67 = 100.0) (*a*)

Period	*Weighted average of six State capital cities*	*Sydney*	*Mel-bourne*	*Brisbane*	*Adelaide*	*Perth*	*Hobart*	*Canberra*	*Weighted average of seven capital cities*
Year—									
1972–73	129.8	133.9	127.2	128.6	126.5	127.3	126.7	126.3	129.8
1973–74	146.6	151.3	144.0	146.1	143.9	140.6	142.6	142.8	146.6
1974–75	171.1	176.1	167.9	168.7	169.7	166.1	166.7	164.9	171.0
1975–76	193.3	199.0	189.5	190.9	190.5	189.6	190.0	187.3	193.3
1976–77	220.0	223.4	216.6	218.0	220.1	219.4	217.7	212.9	219.9
Quarter—									
1974–75—									
September	162.0	167.0	159.4	161.4	159.4	154.3	157.4	157.4	162.0
December	168.1	173.0	164.6	166.6	166.4	163.6	165.5	162.7	168.0
March	174.1	178.8	170.8	171.1	173.8	169.8	169.3	166.4	174.0
June	180.2	185.5	176.7	175.6	179.3	176.7	174.6	173.2	180.1
1975–76—									
September	181.6	188.2	177.7	178.4	178.2	176.5	175.9	173.0	181.5
December	191.7	196.9	188.4	189.6	188.6	187.7	189.1	186.9	191.7
March	197.4	203.1	193.4	195.6	194.6	193.9	194.2	191.6	197.4
June	202.4	207.6	198.3	200.1	200.4	200.4	200.6	197.7	202.4
1976–77—									
September	206.9	211.1	203.2	205.1	205.5	205.4	205.5	201.9	206.8
December	219.3	222.8	215.3	217.8	220.0	219.0	217.2	213.0	219.2
March	224.3	227.4	221.0	222.5	224.7	224.0	221.4	216.5	224.2
June	229.6	232.3	227.0	226.6	230.1	229.3	226.7	220.3	229.4
1977–78—									
September	234.1	236.0	231.6	231.3	235.6	234.9	232.0	224.8	233.9

(*a*) The separate city indexes measure price movements within each city individually. They do not compare price levels between cities.

CONSUMER PRICE INDEX: GROUP INDEXES WEIGHTED AVERAGE OF SIX STATE CAPITAL CITIES

(*Base of each index: Year* 1966–67 = 100.0 unless otherwise noted)

Period	*Food*	*Clothing*	*Housing*	*Household equipment and operation*	*Transport-ation*	*Tobacco and alcohol*	*Health and personal care*(*a*)	*Recreation* (*b*)	*All groups*
Year—									
1972–73	125.7	125.8	142.4	118.7	135.0	132.6	129.7	(*c*)	129.8
1973–74	149.5	143.0	157.8	129.6	144.9	145.2	149.0	(*c*)	146.6
1974–75	164.0	173.0	187.4	153.8	173.0	170.4	186.5	(*c*)	171.1
1975–76	180.2	201.0	221.1	178.3	203.8	211.1	151.6	(*c*)	193.3
1976–77	201.2	232.5	251.8	196.3	221.9	229.8	265.8	104.1	220.0
Quarter—									
1974–75—									
September	161.9	161.1	174.8	143.5	161.9	162.8	167.5	(*c*)	162.0
December	161.6	172.8	184.3	151.8	169.9	166.1	176.7	(*c*)	168.1
March	163.4	175.2	190.2	157.4	177.1	174.5	199.5	(*c*)	174.1
June	168.9	182.9	200.3	162.4	182.9	178.0	202.4	(*c*)	180.2
1975–76—									
September	171.6	187.1	207.5	166.4	192.3	181.7	155.6	(*c*)	181.6
December	176.9	200.0	218.4	178.4	203.0	216.1	144.3	(*c*)	191.7
March	185.7	202.6	224.6	181.9	208.7	220.6	149.6	(*c*)	197.4
June	186.6	214.4	233.9	186.5	211.2	225.8	156.9	(*c*)	202.4
1976–77—									
September	192.3	218.1	241.1	189.9	215.2	226.1	161.5	100.0	206.9
December	199.6	232.1	249.4	193.0	218.6	229.2	295.4	101.6	219.3
March	203.4	235.6	255.0	198.9	225.0	230.3	301.3	105 8	224.3
June	209.4	244.1	261.6	203.5	228.7	233.4	304.9	108.8	229.6
1977–78—									
September	217.4	248.2	266.7	206.4	232.3	236.0	307.1	110.1	234.1

(*a*) *Base:* December quarter 1968 = 100.0. (*b*) *Base:* September quarter 1976 = 100.0. (*c*) New grouping not compiled for quarters prior to September quarter 1976.

CONSUMER PRICE INDEX: GROUP INDEXES SIX STATE CAPITAL CITIES AND CANBERRA

(*Base of each index: Year* 1966–67 = 100.0 unless otherwise noted) (*a*)

Year	*Sydney*	*Melbourne*	*Brisbane*	*Adelaide*	*Perth*	*Hobart*	*Canberra*
FOOD							
1972–73 . . .	126.1	125.9	127.5	123.1	124.5	120.0	123.9
1973–74 . . .	151.5	148.8	152.5	148.3	141.7	141.4	148.6
1974–75 . . .	166.3	161.7	164.8	163.7	160.9	158.6	161.7
1975–76 . . .	181.8	177.8	180.8	180.6	180.2	177.5	181.3
1976–77 . . .	200.2	198.9	201.7	205.8	205.5	201.5	201.5
CLOTHING							
1972–73 . . .	125.9	125.4	125.3	127.2	126.1	125.6	125.6
1973–74 . . .	143.6	142.3	142.0	144.2	143.3	142.4	142.4
1974–75 . . .	174.1	172.0	171.5	173.8	174.2	171.8	172.3
1975–76 . . .	201.0	200.4	200.0	203.6	202.3	200.9	200.9
1976–77 . . .	231.9	232.4	230.4	236.5	232.9	232.5	232.4
HOUSING							
1972–73 . . .	154.9	133.1	136.7	133.3	139.7	131.8	128.4
1973–74 . . .	171.5	148.3	150.3	150.6	149.1	146.9	140.2
1974–75 . . .	199.2	180.6	176.4	185.3	174.2	180.9	163.3
1975–76 . . .	233.7	214.0	202.9	222.1	209.7	216.4	194.1
1976–77 . . .	264.5	242.6	236.0	253.8	244.5	244.9	224.0
HOUSEHOLD EQUIPMENT AND OPERATION							
1972–73 . . .	122.9	114.1	120.0	116.5	121.4	123.8	115.1
1973–74 . . .	134.8	124.8	130.8	126.3	130.5	132.8	124.3
1974–75 . . .	160.8	147.2	156.5	149.2	154.5	156.4	145.0
1975–76 . . .	186.5	169.5	181.7	173.1	184.1	183.9	166.1
1976–77 . . .	205.5	188.0	197.7	190.0	198.9	201.8	183.9
TRANSPORTATION							
1972–73 . . .	145.5	128.6	131.4	130.3	123.3	132.1	126.5
1973–74 . . .	154.2	139.0	143.7	141.2	132.5	139.6	139.5
1974–75 . . .	184.6	164.4	171.4	171.9	158.2	165.3	166.4
1975–76 . . .	220.0	194.1	199.7	196.2	184.9	196.7	196.9
1976–77 . . .	231.7	216.8	219.6	215.5	206.2	220.7	216.6
TOBACCO AND ALCOHOL							
1972–73 . . .	132.5	134.9	130.4	128.6	131.2	134.7	129.2
1973–74 . . .	146.3	146.9	144.1	140.7	139.3	152.7	140.4
1974–75 . . .	170.1	173.7	166.3	167.0	167.6	169.4	162.9
1975–76 . . .	214.3	214.0	200.9	206.2	206.4	206.3	194.3
1976–77 . . .	236.6	229.3	217.4	224.6	226.3	222.0	213.1
HEALTH AND PERSONAL CARE(*b*)							
1972–73 . . .	134.6	126.6	122.4	130.0	127.0	125.8	140.2
1973–74 . . .	149.5	151.0	142.9	149.6	145.9	141.0	156.7
1974–75 . . .	186.8	188.1	175.8	191.3	188.2	174.1	189.8
1975–76 . . .	152.3	149.3	164.1	144.0	156.6	138.5	156.9
1976–77 . . .	246.8	266.1	296.1	274.7	308.1	250.3	263.3
RECREATION(*c*)							
1976–77 . . .	104.4	103.7	104.1	103.8	104.3	103.6	104.3

(*a*) The index numbers are designed to measure movements in retail prices of specified groups of items for each city individually. They measure variations from time to time and not differences in price levels between cities. (*b*) *Base:* December quarter 1968 = 100.0. (*c*)*Base:* September quarter 1976 = 100.0.

Previous retail price indexes

Five series of retail price indexes were compiled by the ABS at various times prior to the introduction of the Consumer Price Index in 1960. These indexes are described in Year Book No. 61.

An index of retail price movements from 1901 onwards has been derived by linking together the following indexes: from 1901 to 1914, the 'A' Series Retail Price Index; from 1914 to 1946–47, the 'C' Series Retail Price Index; from 1946–47 to 1948–49, a composite of Consumer Price Index Housing Group (partly estimated) and 'C' Series Index excluding Rent; and from 1948–49 onwards, the Consumer Price Index. The continuous series derived in this way is shown in the table below. As the indexes differ greatly in scope, the resulting series is only a broad indication of long-term trends in retail prices.

RETAIL PRICE INDEX NUMBERS: SIX STATE CAPITAL CITIES COMBINED, 1901 TO 1977

(*Base: Year* 1911 = 100.0)

Year	*Index number*	*Year*	*Index number*	*Year*	*Index number*
1901	88	1927	166	1953	383
1902	93	1928	167	1954	386
1903	91	1929	171	1955	394
1904	86	1930	162	1956	419
1905	90	1931	145	1957	429
1906	90	1932	138	1958	435
1907	90	1933	133	1959	443
1908	95	1934	136	1960	459
1909	95	1935	138	1961	471
1910	97	1936	141	1962	469
1911	**100**	1937	145	1963	472
1912	110	1938	149	1964	483
1913	110	1939	153	1965	502
1914(*a*)	114	1940	159	1966	517
1915(*a*)	130	1941	167	1967	534
1916(*a*)	132	1942	181	1968	548
1917(*a*)	141	1943	188	1969	564
1918(*a*)	150	1944	187	1970	586
1919(*a*)	170	1945	187	1971	621
1920(*a*)	193	1946	190	1972	658
1921(*a*)	168	1947	198	1973	720
1922(*a*)	162	1948	218	1974	829
1923	166	1949	240	1975	954
1924	164	1950	262	1976	1,083
1925	165	1951	313	1977	1,216
1926	168	1952	367		

(*a*) November.

INDEX NUMBERS OF CONSUMER (RETAIL) PRICES IN VARIOUS COUNTRIES ALL GROUP INDEXES(*a*)

(Source: *Monthly Bulletin of Statistics* of the Statistical Office of the United Nations)

(*Base of each index:* Year 1970 = 100)

Period	*Australia (b)*	*Canada*	*Federal Republic of Germany*	*Indonesia (Djakarta)*	*Japan*	*New Zealand*	*United Kingdom*	*United States of America*
1972 . .	112	108	111	111	111	118	117	108
1973 . .	123	116	119	146	124	128	128	114
1974 . .	142	129	127	205	154	142	148	127
1975 . .	163	143	135	244	172	163	184	139
1976 . .	185	153	141	292	188	190	215	147
Quarter—								
1975—								
Sept. .	163	145	136	246	173	165	191	140
Dec. .	172	148	137	262	178	172	197	142
1976—								
March .	177	150	139	278	182	180	204	144
June .	181	152	141	286	188	188	212	146
Sept. .	185	154	141	299	190	194	217	148
Dec. .	196	157	142	306	195	199	227	149
1977—								
March .	201	160	145	312	199	204	238	152
June .	206	164	147	..	204	214	249	155

(*a*) The items priced and the levels at which they are priced in these indexes vary widely according to the intended purposes of the indexes of the various countries. The index numbers show fluctuations in prices in each country and do not measure relative price levels between countries. (*b*) Consumer Price Index converted to base: 1970 = 100.

Wholesale price indexes

Introduction

The ABS compiles a range of Wholesale Price Indexes relating to materials used and articles produced by defined sectors of the Australian economy. Each index is calculated using fixed weights. In compiling the indexes, prices are collected from representative suppliers, manufacturers or exporters of the goods included in the indexes. Prices are generally collected as at the mid-point of each month except in the case of the *Price Index of Materials Used in Manufacturing Industry* and *Export Price Index*, for which average monthly prices are mainly used.

All indexes are compiled and published monthly. Published index numbers for financial years are simple averages of the relevant monthly index numbers. Annual index numbers for most of the indexes are shown below. Monthly index numbers, together with more detailed information concerning methods used in compiling these indexes, are shown in the monthly bulletins published for each index. Information on the weighting patterns for each index are available from the ABS on request.

New index series

Price Indexes of Articles Produced by Manufacturing Industry was published for the first time in June 1976.

In addition, a more detailed dissection of the *Price Index of Materials Used in Building other than House Building* is now published. Thirty-four index number series are published for selected items or combinations of items within this index for the weighted average of six State capital cities. These series are published in addition to the index series for the 11 component groups which are published for each State capital city separately.

Price index of materials used in house building

This index measures changes in prices of selected materials used in the construction of houses. Its composition reflects the usage of materials in houses which were selected as representative for the purpose. Weights are based on the year 1968–69. The reference base of the index is the year 1966–67 = 100.0. Further information concerning the method of compiling the index, as well as more detailed index numbers, is shown in the publications *Price Index of Materials Used in House Building* (6408.0), *Labour Report* No. 58, 1973 and Year Book No. 60.

PRICE INDEX OF MATERIALS USED IN HOUSE BUILDING
GROUP INDEX NUMBERS—WEIGHTED AVERAGE OF SIX STATE CAPITAL CITIES

(*Base of each index: Year* 1966–67 = 100.0)

	Concrete mix, cement and sand	*Cement products*	*Clay bricks, tiles etc.*	*Timber, board and joinery*	*Steel products*	*Other metal products*
Value weight (%)	*5.73%*	*8.10%*	*12.85%*	*36.16%*	*5.86%*	*7.20%*
1972–73 . . .	127.0	139.9	130.7	137.0	136.8	124.9
1973–74 . . .	137.5	154.3	146.8	169.1	153.8	146.3
1974–75 . . .	165.7	193.1	180.3	203.5	192.1	170.3
1975–76 . . .	195.1	227.0	205.1	226.2	229.3	187.1
1976–77 . . .	217.8	258.9	227.8	254.1	263.2	207.9

	Plumbing fixtures	*Electrical installation materials*	*Installed appliances*	*Plaster and plaster products*	*Miscellaneous materials*	*All groups*
Value weight (%)	*3.74%*	*1.63%*	*5.13%*	*5.64%*	*7.96%*	*100.00%*
1972–73 . . .	129.6	126.2	108.3	118.7	124.9	131.1
1973–74 . . .	143.2	146.4	117.7	122.2	135.0	151.3
1974–75 . . .	174.5	168.3	146.4	147.8	161.5	183.4
1975–76 . . .	201.5	183.5	165.9	167.7	187.9	208.1
1976–77 . . .	224.3	201.8	181.9	178.8	210.7	232.9

PRICE INDEX OF MATERIALS USED IN HOUSE BUILDING
ALL GROUPS INDEX NUMBERS—SIX STATE CAPITAL CITIES

(*Base of each index: Year* 1966–67 = 100.0)

	State capital cities(*a*)						*Weighted average of six State capital cities*
	Sydney	*Melbourne*	*Brisbane*	*Adelaide*	*Perth*	*Hobart*	
1972–73 . .	135.6	126.5	133.8	134.8	126.9	130.8	131.1
1973–74 . .	158.0	147.8	152.2	157.2	141.8	145.5	151.3
1974–75 . .	189.4	178.4	187.0	195.4	172.4	179.1	183.4
1975–76 . .	211.1	200.1	218.5	222.5	201.9	209.2	208.1
1976–77 . .	234.5	223.6	243.5	250.7	229.8	235.1	232.9

(*a*) The separate city indexes measure price movements within each city individually. They do not compare price levels between cities.

Price index of materials used in building other than house building

This index measures changes in prices of selected materials used in the construction of buildings other than houses and 'low-rise' flats (the latter being, in general, those up to three storeys high). Weights are based on the year 1966–67. The reference base of the index is the year 1966–67 = 100.0.

Further information concerning the method of compiling the index, as well as more detailed index numbers for each capital city, is shown in the publications *Price Index of Materials Used in Building other than House Building* (6407.0), *Labour Report* No. 58, 1973 and Year Book No. 60.

PRICE INDEX OF MATERIALS USED IN BUILDING OTHER THAN HOUSE BUILDING GROUP INDEX NUMBERS—WEIGHTED AVERAGE OF SIX STATE CAPITAL CITIES

(*Base of each index: Year* 1966–67 = 100.0)

	Concrete mix, cement, sand, etc.	*Cement products*	*Bricks, stone, etc.*	*Timber, board and joinery*	*Steel and iron products*	*Aluminium products*
Value weight(%)	*10.41%*	*3.64%*	*5.28%*	*11.90%*	*30.58%*	*6.01%*
1972–73 . . .	124.5	135.0	130.1	132.9	130.3	125.4
1973–74 . . .	136.0	147.7	146.3	160.2	148.8	138.4
1974–75 . . .	164.6	183.9	179.4	194.7	189.2	169.2
1975–76 . . .	193.0	220.0	202.7	219.3	223.4	193.6
1976–77 . . .	215.6	244.7	224.0	243.6	251.7	213.7

	Other metal products	*Plumbing fixtures*	*Miscel-laneous materials*	*Electrical installation materials*	*Mechanical services components*	*All groups*
Value weight(%)	*2.59%*	*1.19%*	*7.09%*	*8.61%*	*12.70%*	*100.00%*
1972–73 . . .	126.4	143.5	124.5	120.5	132.4	128.9
1973–74 . . .	158.5	159.6	134.2	138.3	143.9	145.8
1974–75 . . .	162.7	197.7	163.4	157.4	181.3	179.2
1975–76 . . .	173.3	232.1	186.8	177.4	201.3	206.2
1976–77 . . .	195.0	251.2	204.2	199.6	225.4	230.3

PRICE INDEX OF MATERIALS USED IN BUILDING OTHER THAN HOUSE BUILDING ALL GROUPS INDEX NUMBERS—SIX STATE CAPITAL CITIES

(*Base of each index: Year* 1966–67 = 100.0)

	State capital cities(a)						*Weighted average of six State capital cities*
	Sydney	*Melbourne*	*Brisbane*	*Adelaide*	*Perth*	*Hobart*	
1972–73 . . .	127.2	131.2	130.4	129.8	126.3	129.7	128.9
1973–74 . . .	144.1	148.0	149.0	145.8	142.9	143.8	145.8
1974–75 . . .	176.0	180.6	186.6	181.0	176.7	179.3	179.2
1975–76 . . .	199.0	209.4	216.3	210.4	208.3	210.4	206.2
1976–77 . . .	221.5	234.8	241.2	234.3	235.4	234.8	230.3

(*a*) The separate city indexes measure price movements within each city individually. They do not compare price levels between cities.

Price index of materials used in manufacturing industry

This index measures changes in prices of materials (including fuels) used by establishments classified to the Manufacturing Division of the Australian Standard Industrial Classification (ASIC). The index is on a *net basis*, i.e. it relates in concept only to those materials which are used by establishments within the Manufacturing Division in Australia and which have been produced by establishments outside that Division. Materials purchased by establishments classified to the Australian Manufacturing Division from other establishments in that Division are outside the scope of the index, except when they are purchased from overseas.

The reference base of the index is the year 1968–69 = 100.0. The weighting base of the index corresponds to the year 1971–72. The items included in the index were allocated weights in accordance with estimated manufacturing usage in 1971–72 valued at relevant prices applying in the reference base year 1968–69. The selected items are combined for publication purposes into broad groups using two different classifications:

(i) Australian Standard Industrial Classification (ASIC), and
(ii) Standard Industrial Trade Classification (SITC (R)).

Further information concerning the method of compiling the index, as well as more detailed index numbers, is shown in the publications *Price Index of Materials Used in Manufacturing Industry* (6411.0) and Year Book No. 61.

PRICE INDEX OF MATERIALS USED IN MANUFACTURING INDUSTRY: GROUP INDEX NUMBERS BASED ON AUSTRALIAN STANDARD INDUSTRIAL CLASSIFICATION

(*Base of each index: Year* 1968–69 = 100.0)

	Imported materials				*Home produced materials*					
	Agriculture	*Mining*	*Manufacturing*	*Total imported materials*	*Agriculture*	*Forestry and fishing*	*Mining*	*Electricity*	*Total home produced materials*	*All groups*
Value weight (%)	*1.92%*	*4.17%*	*21.07%*	*27.16%*	*47.04%*	*1.12%*	*18.92%*	*5.76%*	*72.84%*	*100.00%*
1972–73 . .	105.2	109.1	104.4	105.2	125.3	131.0	100.4	103.7	117.2	113.9
1973–74 . .	130.6	196.3	113.1	127.1	147.9	157.3	119.0	109.9	137.6	134.7
1974–75 . .	149.3	357.8	149.5	181.5	132.2	187.8	129.0	124.6	131.6	145.1
1975–76 . .	166.5	423.6	162.6	202.9	132.3	213.7	163.3	137.9	142.0	158.6
1976–77 . .	258.6	479.5	182.1	233.2	152.5	245.2	189.1	148.8	163.1	182.2

PRICE INDEX OF MATERIALS USED IN MANUFACTURING INDUSTRY: GROUP INDEX NUMBERS BASED ON STANDARD INTERNATIONAL TRADE CLASSIFICATION (REVISED)

(*Base of each index: Year* 1968–69 = 100.0)

	Manufactured materials (imported)			*Other materials (imported and home produced)*			
	Chemicals	*Metal manufactures, components for transport equipment and machinery*	*Other manufactured materials*	*Food, live animals and tobacco*	*Crude materials (excl. fuels)*	*Electricity, gas and fuels*	*All groups*
Value weight (%)	*6.67%*	*5.21%*	*5.76%*	*45.87%*	*20.66%*	*15.83%*	*100.00%*
1972–73 . .	91.4	119.3	97.6	122.9	116.0	99.1	113.9
1973–74 . .	96.3	118.6	106.1	145.9	140.7	126.2	134.7
1974–75 . .	141.9	148.7	137.4	132.4	149.3	179.5	145.1
1975–76 . .	149.4	179.6	148.4	132.5	163.0	229.0	158.6
1976–77 . .	160.3	211.6	164.5	154.9	191.5	254.8	182.2

(*a*) Figures are shown to one decimal place to avoid distortions that would occur in rounding off the index numbers to the nearest whole number.

Price indexes of articles produced by manufacturing industry

Scope and composition

These indexes, which were first published in 1976, measure changes in the price of articles produced by establishments classified to the Manufacturing Division of the Australian Standard Industrial Classification (ASIC). The indexes are on a *net basis*, i.e. they relate in concept only to those articles which are produced in defined sectors of Australian manufacturing industry for sale or transfer to other sectors or for export or for use as capital equipment. Articles which are sold or transferred to other establishments within the sector for further processing (as materials, components, fuels, etc.) are excluded.

The following sector price indexes are published:

(i) a net index for the Manufacturing Division of ASIC (known as the *All Manufacturing Industry Index*), and

(ii) net indexes for selected sub-divisions within the Manufacturing Division.

In addition, indexes are published for three special groupings which are components of particular *net* sub-division indexes. The *All Manufacturing Industry Index* represents price movements of goods which are produced by establishments in the Manufacturing Division for sale or transfer to establishments outside Manufacturing Division or for use as capital equipment. The pricing and weights for the *All Manufacturing Industry Index*, therefore, reflect sales and transfers of articles *at the point of exit from the Manufacturing Division.*

Indexes are also published for selected sub-divisions within the Manufacturing Division. These indexes reflect movements in the prices of articles produced primarily by the respective sub-divisions for sale or transfer outside the Manufacturing Division or to other sub-divisions within Manufacturing Division or for use as capital equipment. Pricing and weights for each sub-division index, therefore, reflect sales and transfers of articles *at the point of exit from each Manufacturing Sub-division.* Eight of these net sub-division indexes have been developed and published. The remaining four are still under development and will be published as they become available.

Derivation of items and weights

The items included in these indexes were selected on the basis of values of articles produced in 1971–72 by establishments classified to the Manufacturing Division of ASIC in the Census of Manufacturing Establishments. The selected items were allocated weights in accordance with estimated *net* sector production in the year 1971–72, valued at the relevant prices applying the the reference base year 1968 69.

The selected items were combined for weighting and classification purposes using the structure of the Australian Standard Industrial Classification (ASIC). The items have been combined according to the ASIC classes and groups in which they are primarily produced. Percentage contributions of articles to the *All Manufacturing Industry Index* aggregate are given on page 137. Percentage contributions of articles to each of the selected sub-division index aggregates may be obtained from the ABS.

Prices

Prices incorporated in the index are manufacturers' selling prices exclusive of excise and sales tax, and reflect the effects of subsidies and bounties paid to the manufacturers. They also reflect industry selling practices. For example, if costs such as handling and distribution are included in the manufacturer's selling price, this is the price used in the index. Where handling and distribution charges are paid separately by the purchaser, the prices used exclude such charges. Price series relate to goods of fixed specifications with the aim of incorporating in the index price changes for representative articles of constant quality. Further information concerning the method of compiling the index and monthly index numbers for sub-divisions and special groupings are shown in the publication *Price Index of Articles Produced by Manufacturing Industry* (6412.0).

PRICE INDEXES OF ARTICLES PRODUCED BY MANUFACTURING INDUSTRY(*a*)

(*Base of each index: Year* 1968–69 = 100.0)

		Selected net sub-division indexes(*c*)							
Year	*All Manufacturing Industry Index*(*b*)	*Food, beverages and tobacco* (21–22)	*Clothing and footwear* (24)	*Wood, wood products and furniture* (25)	*Glass, clay and other non-metallic mineral products* (28)	*Basic metal products* (29)	*Fabricated metal products* (31)	*Transport equipment* (32)	*Other industrial machinery and equipment and household appliances* (33)
1968-69	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1969-70	103.9	105.1	102.5	104.5	102.9	108.8	102.7	102.4	103.2
1970-71	108.5	111.4	107.2	112.1	108.1	105.9	107.5	105.5	106.7
1971-72	113.9	117.3	112.8	118.4	114.7	109.3	116.5	111.3	114.0
1972-73	120.7	127.7	119.9	125.1	119.6	113.2	125.1	116.0	119.8
1973-74	134.6	142.8	136.7	148.8	129.6	129.4	142.3	124.9	132.4
1974-75	158.1	153.0	161.3	190.0	158.3	151.9	183.2	151.2	158.9
1975-76	177.8	163.5	185.2	219.9	183.2	174.0	217.1	175.8	179.2
1976-77	196.9	180.0	208.1	246.8	202.5	200.6	244.9	195.0	199.4

(*a*) For a full description of Division C, 'Manufacturing' and the selected sub-divisions, see Australian Standard Industrial Classification (ASIC), Preliminary Edition, 1969. (*b*) This index is on a net division basis and relates in concept only to articles which are produced in the Manufacturing Division of ASIC for sale or transfer outside the Division. (*c*) Indexes for the remaining sub-divisions of Manufacturing Division are in the process of development.

PRICE INDEXES OF ARTICLES PRODUCED BY MANUFACTURING INDUSTRY—SPECIAL GROUPINGS(*a*)

(*Base of each index: Year* 1968-69 = 100.0)

		Other industrial machinery and equipment and household appliances (33)	
Year	*Food, beverages and tobacco, excluding meat and abattoir by-products, and raw sugar*	*Appliances and electrical equipment* (332)	*Industrial machinery and equipment, etc.*(*b*) (331 *and* 333)
1968-69	100.0	100.0	100.0
1969-70	101.6	103.8	102.5
1970-71	106.3	106.7	106.6
1971-72	112.3	111.9	116.7
1972-73	117.9	115.6	125.2
1973-74	129.5	126.0	140.4
1974-75	151.7	146.1	175.2
1975-76	168.5	159.9	203.6
1976-77	184.8	176.7	228.3

(*a*) ASIC two digit sub-division and three digit group codes are shown in brackets. (*b*) Includes photographic, professional and scientific equipment.

PRICE INDEXES OF ARTICLES PRODUCED BY MANUFACTURING INDUSTRY, PERCENTAGE CONTRIBUTION OF ARTICLES TO ALL MANUFACTURING INDUSTRY INDEX(a)

	Percentage contribution of articles to All Manufacturing Division Index(b)	
ASIC sub-divisions and groups	Per cent	Per cent
Food, beverages and tobacco—		*29.25*
Meat products	10.11	
Milk products	3.92	
Fruit and vegetable products	1.99	
Margarine and oils, and fats NEC	0.60	
Flour mill and cereal food products	1.21	
Bread, cakes and biscuits	2.40	
Sugar Other food products	4.33	
Beverages and malt	3.37	
Tobacco products	1.32	
Textiles—		*2.20*
Textiles, yarns and woven fabrics	1.00	
Other textile products	1.20	
Clothing and footwear—		*6.32*
Knitting mills	1.33	
Clothing	3.82	
Footwear	1.17	
Wood, wood products and furniture—		*4.29*
Wood and wood products	2.58	
Furniture and mattresses	1.71	
Paper, paper products and printing—		2.06
Paper and paper products	0.53	
Printing and publishing	1.53	
Chemical, petroleum and coal products—		*8.87*
Basic chemicals	1.33	
Other chemical and related products	4.28	
Petroleum refining	3.04	
Petroleum and coal products NEC	0.22	
Glass, clay and other non-metallic mineral products—		*4.77*
Glass and glass products	0.31	
Clay products	1.22	
Cement and concrete products	2.61	
Other non-metallic mineral products	0.63	
Basic metal products		*7.90*
Basic iron and steel	4.38	
Non-ferrous metal basic products	3.52	
Fabricated metal products		*7.01*
Fabricated structural metal products	3.24	
Sheet metal products	1.49	
Other fabricated metal products	2.28	
Transport equipment		*10.23*
Motor vehicles and parts	9.01	
Other transport equipment	1.22	
Other industrial machinery and equipment and household appliances		*12.87*
Photographic and professional scientific equipment	0.42	
Appliances and electrical equipment	7.20	
Industrial machinery and equipment	5.25	
Miscellaneous manufacturing products		*4.23*
Leather and leather products	0.38	
Rubber products	1.31	
Plastic and related products	1.45	
Other manufactures	1.09	
All manufacturing industry	**100.0**	**100.0**

(a) This table illustrates the composition of the All Manufacturing Industry Index. The items whose prices are used in the index have been grouped under the headings of the ASIC sub-divisions and groups in which they are primarily produced. (b) Percentage contributions to the index aggregate based on estimated net production (i.e. production for sale or transfer outside the Manufacturing Division) in 1971–72, valued at relevant prices in 1968–69.

EXPORT PRICE INDEXES

An annual index of export prices has been published by the Bureau since its inception. Brief descriptions of indexes issued between 1901 and 1962 (i.e., prior to the introduction of the current Export Price Index) are shown in Year Book No. 55, pages 256–7.

The current Export Price Index

The current Export Price Index was first published in October 1962, but index numbers have been compiled since July 1959. Index numbers from July 1969 have been compiled on an interim basis which incorporates a re-weighting of the items contained in the original index and the inclusion of some additional items. This interim basis was introduced pending completion of a comprehensive review and re-basing of the index as a whole.

The purpose of the Export Price Index is to provide comparisons monthly, over a limited number of years, of the level of export prices of the selected items, making no allowance for variations in quantities exported. The index numbers are thus measures of price change only. The price series used in the index relate to specified standards for each commodity and in most cases are combinations of prices for a number of representative grades, types, etc.

Further information concerning the method of compiling the index is shown in the publication *Export Price Index* (6405.0) and in Year Book No. 60.

EXPORT PRICE INDEX

(*Base of each index: Year* 1959–60 = 100.0)

Period	*Wool*	*Meats*	*Dairy produce*	*Cereals*	*Dried and canned fruits*	*Sugar*	*Hides and tallow*	*Metals and coal (a)*	*Gold*	*All groups*
1972–73	179	178	119	102	106	136	139	142	180	134
1973–74	172	201	109	184	152	176	161	196	289	160
1974–75	121	132	127	256	176	378	141	263	391	181
1975–76	127	150	122	240	162	335	151	286	359	187
1976–77	164	169	128	219	184	314	203	329	370	206

(*a*) Comprises coal, iron and steel, copper, zinc, lead and silver. Does not include iron ore, bauxite, alumina and mineral sands, which, however, have been included in the 'All groups' index from July 1969.

Previous wholesale price indexes

The *Melbourne Wholesale Price Index*, first compiled in 1912, was discontinued in 1961. The *Wholesale Price* (*Basic Materials and Foodstuffs*) *Index*, which replaced the Melbourne Wholesale Price Index from 1936–37, was discontinued in 1970. Further information concerning these indexes is shown in Year Book No. 61.

References

For further information on the subjects dealt with in the foregoing pages, see the following ABS publications: *Monthly Review of Business Statistics* (1304.0); *Digest of Current Economic Statistics* (1305.0); *Consumer Price Index* (6401.0); *Consumer Price Index, Monthly Food Groups Index Numbers* (6402.0); *Average Retail Prices of Selected Food and Grocery Items, Six State Capital Cities and Canberra* (6403.0); *Price Index of Materials Used in Building other than House Building* (6407.0); *Price Index of Materials Used in House Building* (6408.0); *Price Index of Materials Used in Manufacturing Industry* (6411.0); *Price Indexes of Articles Produced by Manufacturing Industry* (6412.0); *Price Index of Electrical Installation Material* (6409.0); *Price Indexes of Metallic Materials* (6410.0); *Export Price Index* (6405.0).

PRICES JUSTIFICATION TRIBUNAL

General

The Prices Justification Tribunal was established in August 1973 under the provisions of the *Prices Justification Act* 1973. Amendments relating to the Tribunal and its operations were made to the Act under subsequent legislation passed by the Parliament in 1973, 1974 and 1976. The Tribunal is a fully discretionary body appointed under the legislation to consider the justification for proposed price increases put to it by companies subject to the Act. It is not a price regulating authority.

Organisation

The Tribunal consists of a Chairman and such number of other members as are from time to time appointed in accordance with the Act. The Office of the Prices Justification Tribunal comprises the staff required to assist the Tribunal in the performance of its functions, and consists of persons appointed or employed under the *Public Service Act* 1922.

Further information on the Prices Justification Tribunal is contained in its Annual Reports to Parliament.

Activities in 1975–76 and 1976–77

The table below sets out the number of notices of proposed prices processed by the Tribunal during 1975–76 and 1976–77.

NOTICES UNDER SECTION 18 (INCLUDING NOTICES OF PROPOSED PRICES AND APPLICATIONS FOR EXEMPTION) FOR 1975–76

	1975–76	*1976–77*
Number of notices of proposed prices processed by Tribunal	7,739	4,696
Number of notices subject to public inquiry	27	52
Number of notices accepted without public inquiry	7,332	4,374
Number of notices withdrawn by companies	380	270
Total number of exemptions granted pursuant to Section 18 (8) of the Act	344	416

Legislative provisions

Section 16 of the *Prices Justification Act* 1973, as amended by further legislation in 1974 and 1976, provides that:

> 'The functions of the Tribunal are to inquire and report to the Minister, in any case where the Tribunal is required to do so by the Minister or the Tribunal considers that it is desirable to do so, whether the price or prices at which a company or companies (whether a prescribed company or prescribed companies or not) supplies or supply, or proposes or propose to supply, goods or services of a particular description is or are justified and, if the Tribunal is of the opinion that the price or any of the prices is not justified, what lower price for the supply by the company or companies concerned of goods or services of that description would be justified.'

Three important features of the legislation are:

(*a*) A Tribunal inquiry may be initiated by the Minister.

(*b*) The Tribunal may initiate inquiries in its own right.

(*c*) Following an inquiry, the Tribunal is required to report whether it is of the opinion that the price at which the company supplies or proposes to supply the goods in question is justified and, if not, what lower price would be justified.

Other important features of the legislation include the following:

(*a*) The legislation applies to prescribed companies which are companies or groups of related companies with an annual turnover in excess of $30 million. Such companies are required to notify the Tribunal in writing of any proposal to increase the prices of goods or services supplied by that company.

(*b*) Companies whose annual turnover does not exceed $30 million are not required to notify the Tribunal of proposed price increases, but the Tribunal may investigate the prices charged by such companies on its own initiative.

(*c*) The Tribunal must notify a company within 21 days of the receipt of a notice of proposed prices if it intends to proceed to a public inquiry. If the period of 21 days has elapsed or the Tribunal has notified the company that it does not intend to hold an inquiry, the company may put the proposed prices into operation.

(*d*) In the event of a public inquiry the prices of a company's goods and services referred to in its notice must not be raised until the Tribunal has completed the inquiry and its report has been made public by the Minister.

Guidelines and criteria

The legislation does not provide guidelines or criteria for the Tribunal to observe in its consideration of price proposals. The development of such guidelines and criteria has rested with the Tribunal. In considering notices of proposed price increases the Tribunal has regard for all relevant aspects and particularly the following:

(*a*) Costs which have actually been incurred.

(*b*) The distinction between 'avoidable' and 'unavoidable' cost increases.

(*c*) Wage increases which are over-award wage agreements, consent agreements or other arrangements. In this regard the Tribunal places responsibility on companies to justify recoupment in prices of additional costs resulting from such agreements or arrangements on wage rates.

(*d*) Prices should reflect a reasonable allowance for productivity achievements to offset increases in costs.

(*e*) Regard is taken of the level of profitability of the company and its capacity to maintain a reasonable level of investment and growth.

The amending legislation in 1976 provided that in exercising its functions under sub-section (1), the Tribunal shall have due regard to the need for the company or companies concerned to achieve a level of profitability that is sufficient to enable the company or companies to maintain an adequate level of investment and employment.

Notices of proposed prices

Section 18 of the Prices Justification Act requires companies to submit a notice in writing to the Tribunal giving details of proposed increases in prices to apply to goods or services supplied by the company. There are four broad categories of treatment of a company's notification of price increases:

(*a*) Where notified price increases are accepted by the Tribunal the company is forwarded a *Notice of No Inquiry* and may proceed with the proposed price increases.

(*b*) If the Tribunal considers that a lower price than that proposed by a company is just, it may invite the company to discuss the matter in private session. If agreement is reached on a level of price increase, a *Substituted Price Notice* is issued and the company may proceed with the agreed price increase.

(*c*) If a company chooses to pursue a price proposal discussed in private session but for which agreement was not forthcoming, the Tribunal may decide to consider the matter in a *Public Inquiry*.

(*d*) The Prices Justification Act, Section 18 (8), provides for the Tribunal to give an exemption to a company in respect of its obligation to notify the Tribunal of proposed increases in prices of goods or services supplied. Such exemptions are given as a device to enable companies to proceed with price increases in cases where the Tribunal is satisfied that the basis of pricing adopted by the Company and the competitive forces in the market place are sufficient to ensure that prices charged will be justified.

Amending legislation in 1976 provided that in deciding whether to give an authorization under Section 18 (8) in relation to a company, the Tribunal shall consider:

(*a*) whether the company is in a position substantially to control a market for goods or services supplied by the company; and

(*b*) whether the prices charged by the company during a substantial period have been fair and reasonable,

and, if the Tribunal is of the opinion that the company is not in a position substantially to control such a market or that the prices charged by the company during a substantial period have been fair and reasonable, the Tribunal shall consider these matters to be relevant for the purpose of deciding whether to grant an exemption.

HOUSEHOLD EXPENDITURE SURVEYS

During the financial years 1974–75 and 1975–76, the ABS conducted two surveys in order to obtain information about the expenditure patterns of private households. The 1974–75 survey was confined to a sample of households in the six State capital cities and Canberra (collection in Darwin being suspended in December 1974 due to cyclone Tracy), while the coverage of the 1975–76 survey was extended to include other urban and rural regions. Apart from limited attempts in 1910–11 and 1913 to assess the spending patterns of Australian households, these surveys were the first official collections of household expenditure statistics conducted in this country.

Surveys of household expenditure and related topics have formed an integral part of the statistical programmes of a number of other countries for many years. Perhaps the most important reason for the collection of data relating to expenditure at the household level is to provide information for use in improving the representativeness of the items and the weighting pattern used to compile the Consumer Price Index (see page 127). Household expenditure statistics also provide a rich source of data needed for a wide range of policy and research purposes. These include the planning of welfare services; assessing the need for, and effect of, programmes in fields such as housing, education and health; assessing the impact of taxation and government benefits; and improving estimates of private final consumption expenditure in the National Accounts.

Scope and coverage

The 1974–75 survey obtained data from a sample of 9,095 households in the six State capital cities and Canberra, while the 1975–76 survey sampled 5,869 households in all regions of Australia. Apart from this difference in geographic coverage, the subject content and general methodology of the two surveys were virtually identical.

Only private dwellings were sampled, including houses, home units, flats, caravans, garages, tents and any other structures being used as private places of residence at the time of the survey. Hotels, boarding houses, institutions, etc. were defined as special dwellings outside the scope of the survey.

All categories of households (or persons) in selected private dwellings were included in the survey except:

> foreign diplomats and their staff; foreign servicemen and their families stationed in Australia; persons from overseas countries touring or holidaying in Australia; visitors staying with the household for less than six weeks after the initial interview (four weeks in the 1974–75 survey); usual residents absent at the time of the initial interview and not returning within seven days; and usual residents who were going away during the first half of the diary keeping and not returning before the end of diary keeping.

Data collection and processing

Trained interviewers approached selected households to obtain their co-operation in the completion of several questionnaires. Each household was asked for details of large or infrequent items of expenditure (e.g. purchase of vehicles and property, and the payment of household bills such as electricity and gas) and for details of income from all sources. In addition, a diary was provided to each household member aged 15 years or more, in which they were requested to record, on a daily basis, a description and value for all items purchased over the following two weeks. (Because of anticipated differences in spending patterns in rural areas compared with metropolitan and other urban areas, members of rural households selected in the 1975–76 survey were issued with four-week diaries).

Apart from expenditure and income information, particulars of the composition of the household were also obtained together with basic demographic information about the members of the household such as their age, sex, marital status, occupation and employment status. This information enabled households to be classified according to size, composition, etc.

Processing of the data was carried out in three phases. Firstly, during the collection phase, the interviewer checked the returns for any apparent inaccuracies and inconsistencies. Secondly, on receipt in the ABS central office, all returns were clerically edited and all payments in the diary were assigned a commodity code. Thirdly, data was transferred to magnetic tape and various computer operations were performed to ensure, as far as possible, that the data was correct. In addition, expenditure and income data was converted to a weekly equivalent, and expenditure, income and other totals and the classificatory variables required for tabulation purposes were derived. Expansion factors ('weights') were inserted in respondent household records to enable the sample data to be expanded to obtain estimates for the total population.

Definitions

A *Household* was defined as a group of people who live together as a single unit in the sense that they have common housekeeping arrangements; i.e. they have some common provision for food and other essentials of living. A person or persons living in the same dwelling but having separate catering arrangements constituted a separate household.

Expenditure was defined as all payments for goods and services for private use made by all members of the selected household aged 15 years and over. In general, expenditure was collected on the basis of payments made during the reference period rather than on the basis of goods and services 'acquired' or 'consumed' during the period. Expenditure was net of refunds or expected refunds (e.g. payments for health services were net of any refunds received or expected to be received). Information was collected on a household basis because many items of expenditure such as food, accomodation and household goods and appliances relate to the household as a unit rather than to individual persons.

Income was defined as gross income from all sources before taxation and other deductions were made, and was collected from all members of the selected household aged 15 years and over. The main components of income are: wages and salaries (including income-in-kind received from an employer); income derived from self-employment (including wages and income-in-kind taken from the business); Government social service benefits; income from investments (including interest, dividends, royalties and rent); and other regular income (including educational grants and scholarships received in cash, benefits received from an overseas government, income received for professional advice outside the normal job situation, superannuation, worker's compensation, alimony or maintenance, and any other allowances regularly received).

The *Head of household* was taken to be that person nominated by the member(s) of the household as the 'head'. This person was usually the male 'breadwinner'.

Adults, *children* were, respectively, household members aged 18 years or more and household members aged less than 18 years.

Workers were defined as those persons aged 15 years or over who reported any 'earned' income in the survey (i.e. income from self-employment, or wage and salary income from part-time or full-time employment). The following categories of persons were asked to report earned income: persons who worked in a job or business at any time during the four weeks prior to the week of interview; persons who did not work during the four weeks prior to the week of interview but who received income from a job or business for any of the four weeks (e.g. a person on paid holiday, sickness or long-service leave, a silent partner in a business); and persons who did not work or earn income from a job or business in the four weeks prior to the week of interview but who were commencing work in the week of interview (these persons were asked to report expected income).

Retired persons were defined as those persons who reported no 'earned' income and who described themselves as being retired (e.g. having retired from work for reasons of age or sickness).

Other payments included payments such as income tax, life insurance premiums, superannuation contributions, purchases of and deposits on land and dwellings, and gambling payments. Receipts from sale of property and gambling winnings were offset against payments.

Reliability of Results

Since the estimates are based on a sample, they may differ from the figures that would have been obtained from a complete enumeration of the population using the same questionnaires and procedures. These differences are called sampling errors. One measure of the likely difference is given by the standard error percent, i.e. the standard error expressed as a percentage of the estimate. The size of the percentage standard error depends on:

(*a*) The size of the sample on which the estimate is based (the smaller the sample, the larger is the standard error percent); and

(*b*) the variability in the frequency of reporting and in the size of the reported values (e.g. expenditure on household appliances would be more variable, and hence have a higher standard error percent, than expenditure on meat).

A more detailed discussion of standard errors may be found in ABS publication *Household Expenditure Survey* 1974-75, *Bulletin 3* (*Standard Errors*) (6509.0). Imprecision arising from sampling errors should not be confused with inaccuracies that may occur for other reasons, e.g. errors in response and reporting. Such errors are known as non-sampling errors and may occur in any enumeration whether it be a complete enumeration ('census') or a sample. The most significant types of non-sampling errors are:

Non-response Biases caused by differences in the characteristics of income and expenditure between respondent and non-respondent households. Some attempt was made to minimise non-response bias, but in practice it was not possible to remove all bias. (In 1974–75, 72 per cent of all eligible households co-operated fully during the survey, while in 1975–76 the figure was 73 per cent.)

Response Errors caused by incorrect data supplied by informants.

Processing Errors caused by misinterpretation of the data supplied, incorrect classification of data, errors in transcription of data to computer readable format, etc.

Summary of results

In the lower income ranges, average expenditure exceeded average income as defined (this does not imply that all households in the lower income ranges have expenditure which exceeds income), while in the higher income ranges average income substantially exceeded average expenditure (see below). It should be noted that some households will have financed some items of expenditure from savings and from other sources such as loans, receipts of maturing insurance policies, gifts, windfall gains and profits from the sale of assets which are not included as income as defined for the survey. In addition, some households classified to the lower income ranges may have had lower than usual income during the data reference period, while still maintaining their normal level of expenditure. For the medium and higher income ranges, income tax payments (included in other payments) are a large part of the difference between income and expenditure as defined.

The larger items of average weekly household expenditure in Australia in 1975–76 were transport and communication ($33.62), food ($33.64) and current housing costs ($23.65). In rural regions, however, expenditure on current housing costs was substantially lower than in capital cities and urban regions.

The 1975–76 survey shows that both household income and expenditure were lower in rural and urban regions compared with the capital cities. In urban regions, household income and expenditure were respectively 15.8 per cent and 15.5 per cent less than for capital cities, while for rural regions the difference was 18.7 per cent and 26.2 per cent respectively. Variations in expenditure can be observed over a range of characteristics, e.g. between capital cities, quarter of year, household income, household composition, and age of household head. Detailed results of the two surveys have been published in a series of bulletins available on request to the ABS. Some unpublished tables are also available on request.

HOUSEHOLD EXPENDITURE SURVEY, 1975-76
HOUSEHOLD EXPENDITURE BY HOUSEHOLD INCOME, AUSTRALIA

	Weekly household income						
	Under $80	*$80 and under $140*	*$140 and under $200*	*$200 and under $260*	*$260 and under $340*	*$340 or more*	*All households*
Number of households in sample	927	818	1,148	942	966	1,068	5,869
Estimated total number of households in population ('000)	651.5	599.4	810.9	673.8	686.2	737.7	4,159.5
Average number of persons per household	1.76	2.65	3.23	3.39	3.48	3.82	3.09
Average age of household head (years)	61.69	49.72	41.45	40.92	40.33	42.93	45.80
Average weekly household income ($)	50.80	111.33	169.51	229.27	295.05	465.15	225.35
	Average weekly household expenditure						
Commodity or service—							
Current housing cost(*a*)	9.62	19.35	22.12	25.23	29.41	34.42	23.65
Fuel and power	2.80	3.30	4.24	4.26	4.29	4.96	4.02
Food	17.96	25.48	31.67	35.72	39.67	48.76	33.64
Bread, cakes and cereals	2.46	3.26	3.99	4.04	4.20	4.81	3.83
Meat and fish	4.71	6.53	7.69	8.55	9.01	11.30	8.06
Dairy products, oils and fats	3.26	4.42	5.32	5.45	5.65	6.32	5.12
Fruit and vegetables	2.94	4.00	4.52	5.30	5.42	6.51	4.82
Other food	4.58	7.26	10.15	12.39	15.39	19.83	11.80
Alcohol and tobacco	3.19	6.95	9.28	10.61	13.38	16.93	10.24
Clothing and footwear	5.40	8.65	11.63	15.31	18.40	25.24	14.35
Household equipment and operation	7.83	8.84	12.68	18.33	25.58	28.85	17.28
Medical care and health expenses	2.27	4.22	5.11	6.15	5.82	7.80	5.30
Transport and communication	9.53	20.78	29.06	34.48	44.95	59.04	33.62
Recreation and education	4.91	8.05	11.01	18.37	18.92	31.63	15.78
Miscellaneous goods and services	5.98	8.64	10.44	14.92	17.50	27.89	14.47
Total expenditure	**69.49**	**114.28**	**147.24**	**183.39**	**217.92**	**285.53**	**172.35**
Selected other payments(*b*)	5.38	21.18	33.34	43.21	68.86	113.10	48.81

(*a*) Included in current housing costs are both principal and interest components of any housing loan repayments. Excluded are outright purchase of, or deposit on, dwellings or land, and other payments of a capital nature. (*b*) The main components of this item are income tax, superannuation contributions, life insurance premiums, purchases of and deposits on dwellings and land, and gambling payments. Receipts from sales of dwellings and land, and gambling winnings, are offset against payments.

HOUSEHOLD EXPENDITURE BY STATES AND TERRITORIES, 1975-76

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Australia*
Number of households in sample	1,583	1,327	846	550	506	422	324	311	5,869
Estimated total number of household in population ('000)	1,471.2	1,163.0	607.2	374.6	355.4	121.8	12.7	53.7	4,159.5
Average number of persons per household	3.11	3.10	3.09	2.86	3.12	3.24	3.25	3.34	3.09
Average age of household head (years)	46.20	45.95	46.61	45.82	43.79	45.68	36.82	38.06	45.80
Average weekly household income ($)	220.78	232.10	220.39	217.27	226.85	210.11	336.51	315.52	225.35
	Average Weekly Household Expenditure ($)								
Commodity or service—									
Current housing costs(*a*)	24.98	24.18	20.91	19.80	25.12	18.34	30.43	34.26	23.65
Fuel and power	3.87	4.75	3.40	3.43	3.58	4.42	3.35	5.64	4.02
Food	34.05	35.07	31.56	31.93	32.24	31.35	45.08	38.34	33.64
Bread, cakes and cereals	4.05	3.91	3.53	3.62	3.44	3.77	3.75	3.90	3.83
Meat and fish	7.92	8.64	8.08	7.20	7.44	7.88	9.74	8.91	8.06
Dairy products, oils and fats	5.18	5.27	5.04	4.53	5.10	5.02	5.87	5.52	5.12
Fruit and vegetables	4.94	4.92	4.82	4.22	4.67	4.18	8.24	5.66	4.82
Other food	11.96	12.34	10.10	12.37	11.59	10.49	17.50	14.35	11.80
Alcohol and tobacco	10.72	10.75	8.57	9.16	10.47	9.03	20.26	11.56	10.24
Clothing and footwear	14.14	16.56	11.17	14.23	12.92	15.01	11.42	17.84	14.35
Household equipment and operation	16.68	17.92	16.00	17.25	17.66	18.88	23.09	27.03	17.28
Medical care and health expenses	5.37	5.54	5.11	5.36	4.74	4.45	4.48	5.42	5.30
Transport and communication	33.98	34.14	30.94	32.42	33.52	35.47	49.97	43.99	33.62
Recreation and education	14.50	17.02	14.47	17.26	16.68	13.99	21.44	25.28	15.78
Miscellaneous goods and services	14.47	14.56	15.39	14.03	12.22	13.53	27.60	18.76	14.47
Total expenditure	**172.78**	**180.49**	**157.52**	**164.87**	**169.15**	**164.48**	**237.12**	**228.13**	**172.35**
Selected other payments(*b*)	52.30	46.43	44.35	41.68	51.23	41.24	54.32	104.94	48.81

(*a*) Included in current housing costs are both principal and interest components of any housing loan repayments. Excluded are outright purchase of, or deposit on, dwellings or land, and other payments of a capital nature. (*b*) The main components of this item are income tax, superannuation contributions, life insurance premiums, purchases of and deposits on dwellings and land, and gambling payments. Receipts from sales of dwellings and land, and gambling winnings are offset against payments.

HOUSEHOLD EXPENDITURE BY REGIONS

	1974–75	*1975–76*			
	All capital cities(c)	*All capital cities(d)*	*Urban regions(e)*	*Rural regions(f)*	*Australia*
Number of households in sample	9,095	2,813	2,225	831	5,869
Estimated total number of households in population ('000)	2,634.7	2,692.8	1,105.2	361.6	4,159.5
Average number of persons per household	3.08	3.07	3.05	3.35	3.09
Average age of household head (years)	44.98	45.24	46.65	47.40	45.80
Average weekly household income ($)	205.92	239.28	201.48	194.63	225.35
	Average Weekly Household Expenditure($)				
Commodity or service—					
Current housing costs(*a*)	22.71	26.95	19.95	10.38	23.65
Fuel and power	3.54	4.10	3.96	3.59	4.02
Food	32.38	35.16	31.03	30.31	33.64
Bread, cakes and cereals	3.54	3.89	3.72	3.72	3.83
Meat and fish	7.90	8.36	7.52	7.45	8.06
Dairy products, oils and fats	4.68	5.17	4.78	5.80	5.12
Fruit and vegetables	4.69	5.05	4.32	4.73	4.82
Other food	11.57	12.69	10.69	8.62	11.80
Alcohol and tobacco	9.25	10.83	9.94	6.76	10.24
Clothing and footwear	13.91	15.74	12.30	10.28	14.35
Household equipment and operation	14.65	18.65	14.88	14.38	17.28
Medical care and health expenses	5.84	5.38	5.08	5.37	5.30
Transport and communication	26.26	34.80	31.65	30.90	33.62
Recreation and education	13.80	16.86	14.20	12.61	15.78
Miscellaneous goods and services	14.62	15.66	12.59	11.32	14.47
Total expenditure	**157.00**	**184.14**	**155.57**	**135.90**	**172.35**
Selected other payments(*b*)	40.62	53.78	41.70	33.63	48.81

(*a*) Included in current housing costs are both principal and interest components of any housing loan repayments. Excluded are outright purchase of, or deposit on, dwellings or land, and other payments of a capital nature. (*b*) The main components of this item are income tax, superannuation contributions, life insurance premiums, purchases of and deposits on dwellings and land, and gambling payments. Receipts from sales of dwellings and land, and gambling winnings, are offset against payments. (*c*) The six State Capital Statistical Divisions and the Canberra Statistical District (excluding Queanbeyan) as defined for the purpose of the 1971 Census of Population and Housing. (*d*) As for footnote (*c*) but includes Greater Darwin. (*e*) All towns and urban centres with a population of more than 500 persons (excluding the capital cities) as defined for purposes of the 1971 Census of Population and Housing. (*f*) Localities with a population of less than 500 persons and rural areas (remote areas with less than 0.15 dwellings per square mile were excluded from the survey).

HOUSEHOLD EXPENDITURE BY HOUSEHOLD COMPOSITION, AUSTRALIA, 1975-76

	1 adult	*2 adults*	*3 or more adults*	*1 adult with children*	*2 adults 1 child*	*2 adults 2 children*	*2 adults 3 or more children*	*3 or more adults with children*	*All households(c)*
Number of households in sample	865	1,591	392	204	617	938	788	470	5,869
Estimated total number of households in population ('000)	642.2	1,158.3	318.2	142.5	413.1	650.5	494.4	338.4	4,159.5
Average number of persons per household	1.00	2.00	3.28	2.89	3.00	4.00	5.60	5.37	3.09
Average age of household head (years)	57.50	50.97	52.91	37.68	35.65	35.53	37.56	47.00	45.80
Average weekly household income ($)	105.04	210.65	328.77	140.43	231.27	248.37	232.95	380.65	225.35
				Average Weekly Household Expenditure($)					
Commodity or service—									
Current housing costs(a)	16.37	23.64	22.68	21.02	27.66	29.04	23.85	23.96	23.65
Fuel and power	2.35	3.74	4.17	3.53	4.18	4.61	5.13	5.30	4.02
Food	15.44	26.90	43.14	27.01	32.61	38.95	45.95	58.18	33.64
Bread, cakes and cereals	1.62	2.77	4.64	3.15	3.48	4.60	6.17	6.75	3.83
Meat and fish	3.56	6.96	10.72	6.16	7.49	9.00	10.65	13.74	8.06
Dairy products, oils and fats	2.01	3.70	5.58	4.73	5.47	6.32	8.05	8.65	5.12
Fruit and vegetables	2.28	3.99	6.16	3.84	4.81	5.63	6.47	7.75	4.82
Other food	5.97	9.49	16.04	9.13	11.36	13.40	14.61	21.30	11.80
Alcohol and tobacco	4.80	9.53	16.21	5.49	10.92	10.23	10.57	18.04	10.24
Clothing and footwear	6.92	10.65	21.71	10.43	14.47	16.44	16.86	28.15	14.35
Household equipment and operation	7.66	18.04	16.75	11.84	18.97	22.07	18.45	22.81	17.28
Medical care and health expenses	2.35	4.58	7.63	2.64	5.92	6.35	6.26	8.14	5.30
Transport and communication	14.37	29.11	52.61	17.46	34.17	36.35	37.06	63.83	33.62
Recreation and education	7.03	11.67	26.52	10.13	13.46	19.51	19.98	28.27	15.78
Miscellaneous goods and services	8.89	13.00	21.43	12.88	12.25	14.71	15.39	25.18	14.47
Total expenditure	86.18	150.85	232.87	122.43	174.61	198.24	199.51	281.87	172.35
Selected other payments(b)	19.86	53.26	66.72	12.02	54.14	60.22	45.39	64.00	48.81

(a) Included in current housing costs are both principal and interest components of any housing loan repayments. Excluded are outright purchases of, or deposit on, dwellings or land, and other payments of a capital nature. (b) The main components of this item are income tax, superannuation contributions, life insurance premiums, purchases of and deposits on dwellings and land, and gambling payments. Receipts from sales of dwelling and land, and gambling winnings, are offset against payments. (c) Includes four households where no person was 18 years or over. (These households are not included elsewhere in this table.)

CHAPTER 8

MANPOWER

The principal subjects covered in this chapter are the labour force, employment and unemployment, wage rates and earnings, hours of work, industrial disputes and labour organisations. Further detail on these subjects is contained in *Labour Statistics* (6101.0) and in other publications which are referred to in the various sections of this chapter.

THE LABOUR FORCE

This section contains a number of series relating to the labour force and its components. The labour force comprises two categories of persons: those who are employed and those who are unemployed. In the first category are included employers, self-employed persons, wage and salary earners, and unpaid helpers. Comprehensive details for each State and Territory and for Australia as a whole in respect of persons in the labour force, classified according to industry, occupation and occupational status (i.e. whether employers, self-employed persons, wage and salary earners or unpaid helpers) and personal characteristics such as age, sex, marital status and birthplace, are obtained only at a general census of population.

In the periods between population censuses, estimates of the labour force for the whole of Australia are obtained through the quarterly population survey, which is carried out by means of personal interviews at a sample of households throughout Australia (*see* below). The survey provides, in addition to particulars of the demographic composition of the labour force, broad estimates of occupational status, occupation, industry and hours of work.

Detailed industry estimates for each State and Territory are obtained only in respect of wage and salary earners, through a monthly collection from employers. These estimates, which exclude employees in agriculture and private households employing staff, are based on benchmarks established by analysing data from the population census and other relevant sources such as special returns from government bodies and the Australian Bureau of Statistics' economic censuses and surveys. Further information about estimates of employed wage and salary earners, and in particular the reason for differences between estimates and census data, is given in *Employed wage and salary earners* on page 158.

The population census

Information about the labour force questions in the population census of June 1971 and tables showing the industry and occupational status of the labour force were published in Year Book No. 61. More detailed information on the labour force characteristics of the population at June 1971 is contained in the publications *1971 Census of Population and Housing: Labour Force* (2251.0 to 2259.0).

The population survey

The population survey is the general title given to the household sample survey carried out in February, May, August and November of each year in all States and Territories. Emphasis in the survey is placed on the collection of data on demographic and labour force characteristics, the principal survey component being referred to as the labour force survey. The remaining part of the population survey consists of supplementary collections which are carried out from time to time in conjunction with the labour force survey.

The survey is based on a multi-stage area sample of private dwellings (about 30,000 houses, flats, etc.) and non-private dwellings (hotels, motels, etc.), and covers about two-thirds of one per cent of the population of Australia. The information is obtained each quarter from the occupants of selected dwellings by carefully-chosen and specially-trained interviewers. The interviews are carried out during a period of four weeks, so that there are four survey weeks in each of the months to which the survey relates. These four survey weeks are chosen so as to fall within the limits of the calendar month or with minimum encroachment into the adjacent months.

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The labour force survey

A description of the labour force survey and a selection of principal statistics obtained from it are given in this section. Data from supplementary surveys are published in mimeographed bulletins which are available on request. Results of the principal surveys held in the past have been published in earlier issues of the Year Book. A complete list of supplementary surveys is shown later in this chapter.

The first Australia-wide labour force survey was carried out in February 1964. Estimates are published quarterly in *The Labour Force* (6203.0) and in the preliminary statements, *The Labour Force (Preliminary)* (6202.0) and *Unemployment* (6201.0). More comprehensive statistics have been published in special annual bulletins entitled *The Labour Force* (6204.0), covering the period 1964 to 1968 and generally single years thereafter.

The survey includes all persons fifteen years of age and over (including full-blood Aboriginals), except members of the permanent armed forces and certain diplomatic personnel customarily excluded from census and estimated populations.

The classification used in the survey conforms closely to that recommended by the Eighth International Conference of Labour Statisticians held in Geneva in 1954. In this classification, the labour force category to which an individual is assigned depends on his actual activity (i.e. whether working, looking for work, etc.) during a specified week, known as the 'survey week', which is the week immediately preceding that in which the interview takes place. The interviews are carried out during a period of four weeks, so that there are four survey weeks in each of the months to which the survey relates. These survey weeks generally fall within the limits of the calendar month.

A person's activity during the survey week is determined from answers given to a set of questions specially designed for this purpose. The principal categories appearing in the tables in this section are the employed and unemployed who, together, constitute the labour force. The remainder in the population are classified as not in the labour force. Definitions of these categories are as follows:

(i) *The labour force* comprises all persons who, during the survey week, were employed or unemployed as defined in (ii) and (iii) below.

(ii) *Employed persons* comprise all those who, during the survey week,

  (*a*) did any work for pay, profit, commission or payment in kind, in a job or business, or on a farm (including employees, employers and self-employed persons), or

  (*b*) worked fifteen hours or more without pay in a family business (or farm), or

  (*c*) had a job, business or farm, but were not at work because of illness, accident, leave, holiday, production hold-up due to bad weather, plant breakdown, etc., or because they were on strike.

  A person who had a job but was temporarily stood down by his employer for the whole week without pay is excluded and is classified in the tables as unemployed. A person who did some work during the week before he either lost his job or was stood down, however, is classified as employed. A person who held more than one job is counted only once—in the job at which he worked most hours during survey week.

(iii) *Unemployed persons* comprise all those who either,

  (*a*) during the survey week did not work and did not have a job, but could have taken one had it been available, and had been looking for full-time or part-time work in the four weeks up to and including the survey week (including persons who would have been prevented from taking a job in the survey week by their own temporary illness or injury, or by their having made arrangements to start after the survey week in a new job in which they would have preferred to start in the survey week); or

  (*b*) were waiting to be called back to a job from which they had been temporarily stood down without pay for four weeks or less (including the whole of the survey week).

(iv) *Persons not in the labour force* are all those who, during the survey week, were not in the categories 'employed' or 'unemployed' as defined. This category therefore includes persons without a job, business or farm who were not actively looking for work, and who, during the survey week, were either keeping house (unpaid), attending an educational institution (e.g. school or university), retired or voluntarily inactive, permanently unable to work or inmates of institutions. A person who worked less than fifteen hours without pay in a family business during the survey week is also classified as not in the labour force.

Estimates for May 1974 and 1975 shown in the following tables are based on definitions of *unemployed labour force* and *not in the labour force* which are different from the foregoing. For further details *see* the May 1976 issue of *The Labour Force* (6203.0).

Figures of total population fifteen years of age and over for each sex are derived from the official population estimates which, in turn, are based on results of population censuses. Figures of marital status and all labour force characteristics of these populations are derived from the sample survey data. For this and other reasons, including differences in timing, methods of collection (personal interview in the survey, self-enumeration in the census) and, in some cases, concepts and definitions, the survey estimates of marital status and labour force characteristics may not agree closely with the corresponding census figures.

Reliability of the estimates

Since the estimates which appear in the following tables are based on information obtained from the occupants of a sample of dwellings, they may differ from the figures that would have been produced if the information had been obtained from occupants of all dwellings. One measure of the likely difference is given by the standard error, which indicates the extent to which an estimate might have varied by chance because only a sample of dwellings was included in the survey. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all dwellings had been included in the survey, and about nineteen chances in twenty that the difference will be less than two standard errors.

Space does not allow for the separate indication of the standard errors of all estimates in this section. A table of standard errors which is intended to be of general application is therefore given below.

The figures in this table will not give a precise measure of the standard error of a particular estimate since they are averages based on calculations for a limited number of past surveys over a wide range of labour force characteristics. However, they will provide an indication of the magnitude of the standard error of any particular estimate for any particular survey. An example of the use of the table is as follows: if the estimate for Australia obtained from the sample is 100,000, the standard error is 3,000; i.e. there are then about two chances in three that the true figure is within the range 97,000 to 103,000 and about nineteen chances in twenty that this figure is between 94,000 and 106,000.

STANDARD ERRORS OF QUARTERLY ESTIMATES

	Australia			*Australia*	
Size of estimate (persons)	*No.*	*Per cent of estimate*	*Size of estimate (persons)*	*No.*	*Per cent of estimate*
4,000	800	20.0	200,000	4,000	2.0
5,000	900	18.0	300,000	5,000	1.7
10,000	1,200	12.0	500,000	6,000	1.2
20,000	1,600	8.0	1,000,000	8,000	0.8
50,000	2,300	4.6	2,000,000	10,000	0.5
100,000	3,000	3.0	6,000,000	18,000	0.3

Estimates below 4,000 have not been published—*see* below.

The standard errors of estimates relating to agricultural employment are generally somewhat higher than the standard errors of other estimates of the same magnitude. Estimates for females also tend to have higher standard errors than estimates of equivalent size for males in similar employment categories.

The reliability of an estimated percentage, computed by using sample data for both numerator and denominator, depends upon both the size of the numerator and the size of the denominator. However, the per cent standard error of the estimated percentage will generally be lower than the per cent standard error of the estimate of the numerator. The per cent standard errors of the numerators can be obtained from the table above.

As the standard errors in the table show, the smaller the estimate the higher is the relative standard error. Very small estimates are thus subject to such high standard errors (relative to the size of the estimate) as to detract seriously from their value for most reasonable uses. In the following tables, estimates less than the lowest level shown in the above table have not been included. Although figures for these small components can in some cases be derived by subtraction, they should not be regarded as reliable.

The imprecision due to sampling variability, which is measured by the standard error, should not be confused with inaccuracies that may occur because of imperfections in reporting by interviewers and respondents. Inaccuracies of this kind are referred to as the *non-sampling error*, and they may occur in any enumeration whether it be a full count or only a sample. Every effort is made to reduce the non-sampling error to a minimum by careful design of questionnaires, intensive training and supervision of interviewers and efficient operating procedures.

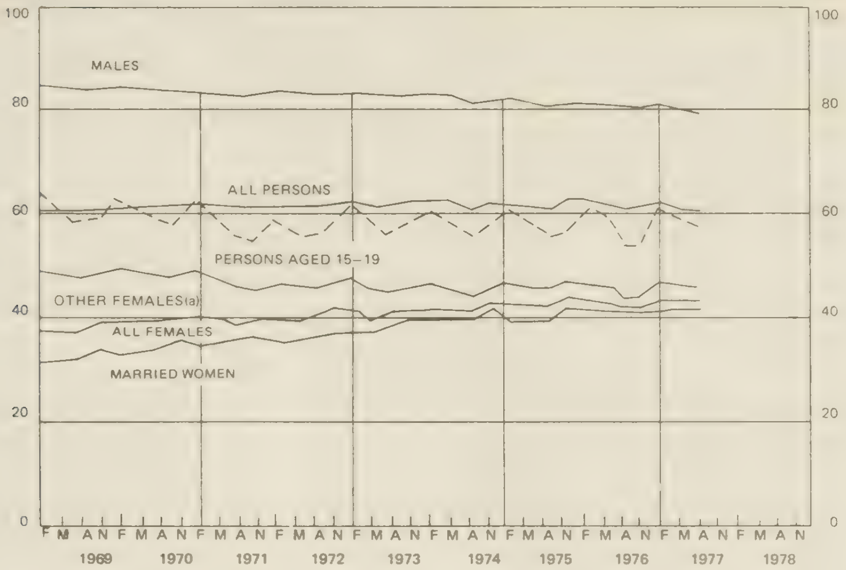
CIVILIAN POPULATION 15 YEARS OF AGE AND OVER(*a*), BY EMPLOYMENT STATUS

	Employed(b)			*Unemployed(b)*		*Total labour force(b)*			
May—	*Agriculture ('000)*	*Other industries ('000)*	*Total ('000)*	*Number ('000)*	*Per cent of labour force(c)*	*Number ('000)*	*Per cent of population(d)*	*Not in labour force(b) ('000)*	*Civilian population aged 15 and over (a) ('000)*
				MALES					
1974 . . .	305.9	3,499.5	3,805.4	45.2	1.2	3,850.6	81.8	856.6	4,707.2
1975 . . .	297.6	3,474.3	3,771.9	124.5	3.2	3,896.3	81.1	910.7	4,807.0
1976(*f*) . .	284.2	3,543.9	3,828.1	132.4	3.3	3,960.5	81.0	930.1	4,890.6
1977(*f*) . .	285.1	3,539.4	3,824.5	170.1	4.3	3,994.6	80.6	963.8	4,958.4
				MARRIED WOMEN					
1974 . . .	48.9	1,197.5	1,246.5	25.6	2.0	1,272.1	39.5	1,948.7	3,220.8
1975 . . .	52.1	1,185.5	1,237.6	51.0	4.0	1,288.6	39.8	1,951.0	3,239.6
1976(*f*) . .	57.1	1,230.7	1,287.8	50.9	3.8	1,338.8	41.0	1,924.4	3,263.2
1977(*f*) . .	61.7	1,266.1	1,327.7	61.6	4.4	1,389.3	41.9	1,925.8	3,315.1
				OTHER FEMALES(*e*)					
1974 . . .	10.9	687.3	698.2	24.5	3.4	722.7	45.6	863.7	1,586.3
1975 . . .	10.3	690.8	701.1	54.1	7.2	755.2	45.3	910.5	1,665.6
1976(*f*) . .	10.6	714.0	724.6	64.2	8.1	788.8	46.0	926.8	1,715.6
1977(*f*) . .	11.5	720.1	731.6	82.4	10.1	814.1	46.1	952.1	1,766.2
				ALL FEMALES					
1974 . . .	59.9	1,884.8	1,944.7	50.1	2.5	1,994.7	41.5	2,812.4	4,807.1
1975 . . .	62.4	1,876.3	1,938.7	105.1	5.1	2,043.8	41.7	2,861.5	4,905.3
1976(*f*) . .	67.8	1,944.7	2,012.5	115.1	5.4	2,127.6	42.7	2,851.2	4,978.8
1977(*f*) . .	73.2	1,986.2	2,059.3	144.0	6.5	2,203.4	43.4	2,877.9	5,081.3
				PERSONS					
1974 . . .	365.8	5,384.3	5,750.1	95.2	1.6	5,845.3	61.4	3,669.0	9,514.3
1975 . . .	360.0	5,350.6	5,710.6	229.6	3.9	5,940.1	61.2	3,772.1	9,712.3
1976(*f*) . .	352.0	5,488.6	5,840.6	247.6	4.1	6,088.1	61.7	3,781.3	9,869.4
1977(*f*) . .	358.3	5,525.6	5,883.8	314.2	5.1	6,198.0	61.7	3,841.7	10,039.7

(*a*) For a note on persons excluded *see* explanatory notes on page 148. (*b*) For definitions *see* page 148. (*c*) The number of unemployed in each group as a percentage of the labour force in the same group. (*d*) The labour force in each group as a percentage of the civilian population aged 15 years and over in the same group (labour force participation rate). (*e*) Never married, widowed and divorced. (*f*) Revised definition of unemployed, labour force, and not in labour force. *See* page 148.

LABOUR FORCE PARTICIPATION RATES

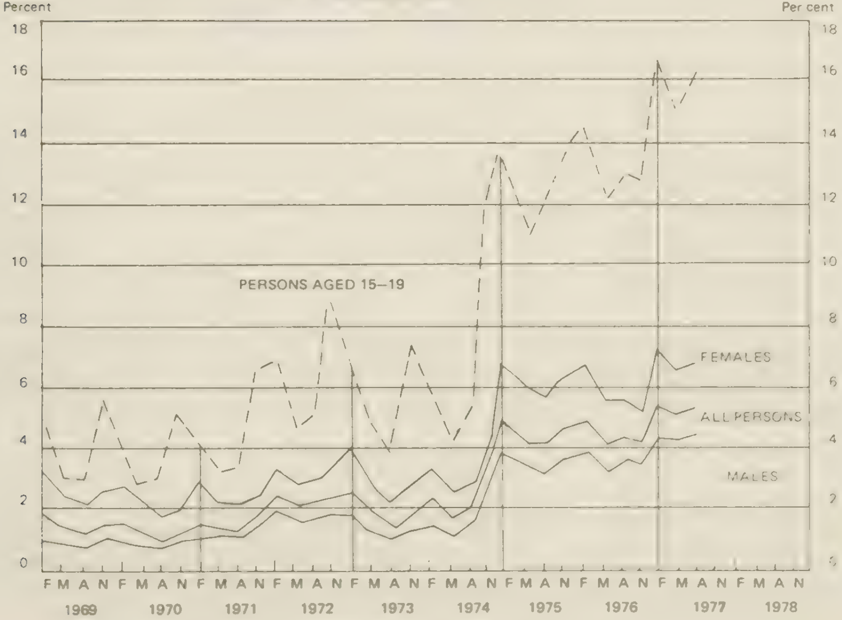
(THE LABOUR FORCE IN EACH GROUP AS A PERCENTAGE OF THE CIVILIAN POPULATION AGED 15 YEARS AND OVER IN THE SAME GROUP)



(a) Never married, widowed and divorced.

UNEMPLOYMENT RATES

(THE UNEMPLOYED IN EACH GROUP AS A PERCENTAGE OF THE CIVILIAN LABOUR FORCE IN THE SAME GROUP)



PLATES 27 and 28

CIVILIAN LABOUR FORCE(*a*): EMPLOYMENT STATUS, BIRTHPLACE AND PERIOD OF ARRIVAL IN AUSTRALIA, MAY 1977

		Unemployed(*b*)		*Total labour force*(*b*)	
Birthplace and period of arrival	*Employed*(*b*) ('000)	*Number* ('000)	*Per cent of labour force*	*Number* ('000)	*Per cent of population*(*c*)
		MALES			
Born in Australia	2,799.2	121.9	4.2	2,921.2	80.6
Born outside Australia	1,025.3	48.2	4.5	1,073.5	83.5
Arrived before 1955	289.5	8.3	2.8	297.8	71.3
1955 to 1961	216.9	7.3	3.2	224.2	90.4
1962 to 1968	248.9	13.6	5.2	262.5	88.7
1969 to 1975	237.2	13.0	5.2	250.2	90.3
Jan. 1976 to May 1977	32.7	6.0	15.5	38.7	82.7
		MARRIED WOMEN			
Born in Australia	931.5	37.0	3.8	968.5	39.7
Born outside Australia	396.2	24.6	5.8	420.8	48.6
Arrived before 1955	83.0	*	*	86.3	35.7
1955 to 1961	90.7	5.0	5.2	95.7	49.9
1962 to 1968	102.8	5.4	5.0	108.2	53.0
1969 to 1975	109.0	8.2	7.0	117.2	57.9
Jan. 1976 to May 1977	10.7	*	*	13.3	50.6
		ALL FEMALES			
Born in Australia	1,541.4	102.9	6.3	1,644.3	43.0
Born outside Australia	517.9	41.1	7.4	559.1	47.3
Arrived before 1955	104.4	5.7	5.2	110.1	31.3
1955 to 1961	113.4	6.4	5.4	119.8	50.3
1962 to 1968	140.4	11.2	7.4	151.6	54.2
1969 to 1975	143.4	13.1	8.4	156.5	57.5
Jan. 1976 to May 1977	16.4	4.7	22.4	21.1	52.4
		PERSONS			
Born in Australia	4,340.7	224.8	4.9	4,565.5	61.3
Born outside Australia	1,543.2	89.3	5.5	1,632.5	66.2
Arrived before 1955	393.9	14.0	3.4	407.9	53.0
1955 to 1961	330.3	13.7	4.0	344.0	70.7
1962 to 1968	389.3	24.8	6.0	414.1	71.9
1969 to 1975	380.6	26.1	6.4	406.7	74.1
Jan. 1976 to May 1977	49.1	10.7	17.9	59.8	68.7

(*a*) Aged 15 years and over. (*b*) For definitions *see* page 148. (*c*) *See* note (*d*) to table on page 150. Persons in institutions for whom, for the purposes of the survey, the institution was regarded as their usual place of residence, have been omitted since it is not practicable to ascertain the birthplace or the year of arrival in Australia for such persons.

* Estimates less than, or based on a figure less than, 4,000 are not published because they would be subject to sampling variability too high for most practical purposes. Although figures for these small components can in some cases be derived by subtraction, they should not be regarded as reliable

CIVILIAN LABOUR FORCE(*a*), BY AGE AND MARITAL STATUS
MAY 1977

Age group (years)	*Married*			*Not married(b)*			*Total*		
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
				NUMBER ('000)					
15–19 . .	5.1	21.1	26.3	392.2	325.5	717.6	397.3	346.6	743.9
20–24 . .	178.2	190.6	368.8	343.5	198.1	541.6	521.8	388.7	910.4
25–34 . .	825.3	399.0	1,224.2	218.1	112.1	330.2	1,043.4	511.0	1,554.4
35–44 . .	695.8	374.5	1,070.3	79.5	50.3	129.8	775.3	424.7	1,200.1
45–54 . .	642.5	296.5	939.1	85.9	63.8	149.6	728.4	360.3	1,088.7
55–59 . .	245.6	73.9	319.5	32.8	30.3	63.1	278.4	104.2	382.6
60–64 . .	154.3	25.6	179.9	24.5	19.5	44.0	178.9	45.1	223.9
65 and over .	53.1	8.1	61.2	18.2	14.7	32.8	71.2	22.8	94.0
Total .	**2,799.9**	**1,389.3**	**4,189.3**	**1,194.7**	**814.1**	**2,008.7**	**3,994.6**	**2,203.4**	**6,198.0**
				PER CENT OF POPULATION(*c*)					
15–19 . .	98.8	53.7	59.0	62.4	56.6	59.6	62.7	56.4	59.6
20–24 . .	97.9	56.9	71.4	87.4	83.7	86.0	90.7	68.0	79.4
25–34 . .	98.3	44.0	70.1	92.9	77.2	86.9	97.1	48.6	73.1
35–44 . .	98.0	54.1	76.3	89.2	67.9	79.6	97.0	55.4	76.6
45–54 . .	95.3	46.5	71.6	84.3	57.5	70.3	93.9	48.1	71.4
55–59 . .	88.7	29.1	60.2	73.7	39.3	51.9	86.6	31.5	58.6
60–64 . .	67.4	12.8	42.0	56.7	21.0	32.3	65.7	15.4	39.7
65 and over .	14.4	3.2	9.9	13.3	3.2	5.5	14.1	3.2	7.8
Total .	**85.2**	**41.9**	**63.5**	**71.5**	**46.1**	**58.4**	**80.6**	**43.4**	**61.7**

(*a*) Aged 15 years and over. For definitions *see* page 148. (*b*) Never married, widowed and divorced. (*c*) The labour force in each group as a percentage of the civilian population in the same group (labour force participation rate).

CIVILIAN LABOUR FORCE(*a*) AND AVERAGE HOURS WORKED(*b*) BY EMPLOYED PERSONS(*a*), BY INDUSTRY, MAY 1977

	Civilian labour force ('000)			*Average hours worked by employed persons*		
Industry division or sub-division	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
Agriculture	297.9	76.9	374.8	49.0	27.0	44.5
Forestry, fishing and hunting . .	17.5	*	18.9	32.9	*	32.5
Mining	73.4	6.0	79.5	39.4	31.8	38.8
Manufacturing	979.7	350.5	1,330.2	38.5	33.1	37.1
Construction	475.7	36.2	511.9	38.3	20.2	36.9
Wholesale and retail trade . .	722.4	511.5	1,233.9	40.2	29.8	35.9
Transport and storage	273.6	45.8	319.4	38.1	28.8	36.8
Finance, insurance, real estate and business services	256.3	215.8	472.2	38.5	30.4	34.8
Community services(*c*)	328.8	567.8	896.6	33.8	26.2	29.0
Entertainment, hotels, personal services, etc.	168.1	228.6	396.7	38.9	26.9	32.0
Other industries(*d*)	385.6	139.7	525.3	35.1	31.5	34.2
Looking for first job	15.7	23.1	38.8	..	..	..
Total	**3,994.6**	**2,203.4**	**6,198.0**	**38.8**	**28.9**	**35.3**

(*a*) Aged 15 years and over. For definitions *see* page 148. (*b*) Persons with jobs who did not work during the survey week have been included in the calculation of average hours worked. When recording hours worked, fractions of an hour are disregarded. This procedure results in a slight lowering of the average hours figure. (*c*) Comprises health, education, libraries, etc.; welfare and religious institutions; and other community services. (*d*) Comprises electricity, gas and water; communication; and public administration and defence.

* Estimates less than, or based on a figure less than, 4,000 are not published because they would be subject to sampling variability too high for most practical purposes. Although figures for these small components can in some cases be derived by subtraction, they should not be regarded as reliable.

CIVILIAN LABOUR FORCE(*a*), BY OCCUPATION, MAY 1977

('000)

Occupation group	*Males*	*Females*	*Persons*
Professional and technical	441.4	363.1	804.5
Administrative, executive and managerial	313.4	44.3	357.7
Clerical	337.1	724.7	1,061.8
Sales	259.7	286.8	546.6
Farmers, fishermen, timber-getters, etc.	352.5	72.2	424.7
Transport and communication	303.0	50.8	353.8
Tradesmen, production-process workers and labourers, n.e.c.(*b*)	1,752.2	263.7	2,015.9
Service, sport and recreation	219.5	374.6	594.2
Looking for first job	15.7	23.1	38.8
Total	**3,994.6**	**2,203.4**	**6,198.0**

(*a*) Aged 15 years and over. For definitions *see* page 148. (*b*) Includes miners, quarrymen and related workers.

EMPLOYED PERSONS(*a*), BY HOURS WORKED(*b*)

('000)

May—	*Hours worked during survey week*								*Average hours worked(d)*	
	0(c)	*1–29*	*30–34*	*35–39*	*40*	*41–48*	*49 and over*	*Total*	*Full-time workers (e)*	*All Persons*
MALES										
1974	261.3	196.7	140.7	351.1	1,426.5	585.8	843.4	3,805.4	41.7	40.7
1975	270.3	208.6	161.3	369.4	1,551.7	469.6	740.9	3,771.9	40.8	39.8
1976	299.1	225.6	154.7	395.4	1,529.5	507.9	715.9	3,828.1	40.5	39.3
1977	310.0	246.0	170.0	408.0	1,532.7	482.0	675.9	3,824.5	40.1	38.8
MARRIED WOMEN										
1974	113.5	372.2	93.3	158.1	373.1	71.8	64.6	1,246.5	37.4	29.5
1975	133.2	379.3	93.7	164.3	361.7	48.8	56.6	1,237.6	36.4	28.2
1976	149.0	422.1	97.2	159.7	350.0	50.5	59.2	1,287.8	36.3	27.4
1977	169.6	433.5	94.6	162.3	348.5	50.2	69.1	1,327.7	36.2	27.1
OTHER FEMALES(*f*)										
1974	47.9	92.3	38.2	145.7	290.8	52.5	30.7	698.2	37.0	33.6
1975	45.0	98.7	37.8	152.9	289.3	49.5	27.8	701.1	37.1	33.4
1976	58.6	114.6	39.9	152.2	283.0	45.1	31.1	724.6	36.5	32.3
1977	57.6	124.5	43.5	138.8	288.3	50.9	28.1	731.6	36.6	32.3
ALL FEMALES										
1974	161.4	464.5	131.4	303.9	663.9	124.3	95.3	1,944.7	37.2	31.0
1975	178.2	478.0	131.5	317.2	651.1	98.3	84.4	1,938.7	36.7	30.1
1976	207.7	536.7	137.1	311.9	633.1	95.7	90.3	2,012.5	36.4	29.2
1977	227.1	558.0	138.1	301.0	636.8	101.1	97.1	2,059.3	36.3	28.9
PERSONS										
1974	422.7	661.2	272.1	654.9	2,090.4	710.1	938.6	5,750.1	40.4	37.4
1975	448.5	686.5	292.9	686.6	2,202.8	567.8	825.4	5,710.6	39.7	36.5
1976	506.8	762.3	291.8	707.3	2,162.6	603.5	806.3	5,840.6	39.4	35.8
1977	537.1	804.0	308.1	709.0	2,169.5	583.0	773.0	5,883.8	39.0	35.3

(*a*) Civilians 15 years of age and over. For definitions *see* page 148. (*b*) Actual hours worked during survey week, not hours paid for. The figures may be affected by public holidays, leave, absenteeism; temporary absence from work due to sickness, accidents, and industrial disputes; and work stoppages due to bad weather, plant breakdown, etc. (c) Excludes persons laid off for the whole of survey week without pay; these persons are classified as unemployed. (*d*) Persons with jobs who did not work during survey week have been included in the calculation of average hours worked. When recording hours worked, fractions of an hour are disregarded. This procedure results in a slight lowering of the average hours figures. (*e*) Persons who usually work 35 hours a week or more and others who, although usually part-time workers, worked 35 hours or more during survey week. (*f*) Never married; widowed; and divorced.

UNEMPLOYED PERSONS(*a*)

	Age (years)										
	15–19		*20 and over*		*Duration of unemployment(b)*				*Looking for—*		
May—	*Number unemployed ('000)*	*Per cent of labour force*	*Number unemployed ('000)*	*Per cent of labour force*	*Under 2 weeks ('000)*	*2 and under 4 weeks ('000)*	*4 and under 13 weeks ('000)*	*13 weeks and over ('000)*	*Full-time work(c) ('000)*	*Part-time work(d) ('000)*	*Total ('000)*
					MALES						
1974 .	10.4	2.9	34.8	1.0	8.7	15.8	14.1	6.6	40.8	4.3	45.2
1975 .	30.8	8.5	93.7	2.7	12.1	21.4	48.4	42.6	117.4	7.1	124.5
1976(*e*)	41.7	10.8	90.7	2.5	9.0	22.4	38.3	62.7	123.3	9.2	132.4
1977(*e*) .	55.5	14.0	114.6	3.2	10.7	25.7	56.7	77.0	157.3	12.9	170.1
					FEMALES						
1974 .	18.2	5.6	31.9	1.9	14.2	12.9	15.8	7.2	30.9	19.2	50.1
1975 .	38.7	11.7	66.4	3.9	13.6	17.8	36.5	37.3	74.1	31.0	105.1
1976(*e*)	45.7	13.6	69.4	3.9	9.5	20.7	39.2	45.6	79.1	36.0	115.1
1977(*e*) .	58.1	16.8	85.9	4.6	11.2	22.5	45.9	64.5	101.3	42.7	144.0
					PERSONS						
1974 .	28.6	4.2	66.7	1.3	23.0	28.6	29.9	13.7	71.7	23.5	95.2
1975 .	69.5	10.0	160.1	3.1	25.7	39.2	84.9	79.8	191.5	38.1	229.6
1976(*e*)	87.4	12.1	160.1	3.0	18.5	43.1	77.6	108.3	202.4	45.2	247.6
1977(*e*) .	113.6	15.3	200.6	3.7	21.9	48.2	102.5	141.5	258.6	55.5	314.2

(*a*) Civilians 15 years of age and over. For definitions *see* page 148. (*b*) Period from the time the person began looking for work, or was laid off, to the end of survey week. (*c*) Includes persons laid off for the whole week from full-time jobs. (*d*) Includes persons laid off for the whole week from part-time jobs. (*e*) Revised definition of unemployed. *See* page 148.

UNEMPLOYMENT RATES(*a*), STATE CAPITAL CITIES AND OTHER AREAS

(Per cent)

	State capital cities(b)			*Other areas*		
May—	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
1974	1.0	1.9	1.3	1.5	3.9	2.2
1975	3.4	5.1	4.0	2.9	5.3	3.6
1976(*c*) . . .	3.3	5.1	3.9	3.5	6.2	4.3
1977(*c*) . . .	4.2	5.8	4.8	4.3	8.1	5.5

(*a*) The unemployed in each group as a percentage of the labour force in the same group. (*b*) The figures relate to persons residing within the boundaries of the relevant Statistical Divisions. Explanatory notes on the delimitation of urban boundaries are shown on pages 142–3 of Year Book No. 61. Maps showing the boundaries of the capital city Statistical Divisions were published in *Census of Population and Housing, 30 June 1971—Census Bulletin No. 6.* (*c*) Based on revised definition of unemployed. *See* page 148.

UNEMPLOYED PERSONS(*a*), BY AVERAGE DURATION OF UNEMPLOYMENT(*b*), MAY, 1977

(Weeks)

Age	*Males*	*Married women*	*Other females(c)*	*All females*	*Persons*
15–19 years	16.8	16.2	20.1	19.9	18.3
20 years and over	19.3	15.2	19.9	16.7	18.2
All unemployed persons	**18.5**	**15.2**	**20.0**	**18.0**	**18.3**

(*a*) Civilians aged 15 years and over. For definition *see* page 148. (*b*) Periods of unemployment are recorded only in completed weeks; this procedure results in a slight lowering of the figures shown for average duration of unemployment. (*c*) Never married; widowed; and divorced.

UNEMPLOYED PERSONS(*a*), BY AGE AND BIRTHPLACE, MAY 1977

	Number unemployed ('000)			*Per cent of labour force*		
Age group (years)	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
BORN IN AUSTRALIA						
15–19	47.6	49.5	97.1	13.8	16.4	15.0
20 and over—						
20–24	27.1	21.4	48.5	6.3	6.7	6.5
25–34	16.7	14.7	31.4	2.3	4.1	2.9
35 and over	30.5	17.3	47.8	2.2	2.6	2.3
Total 20 and over	74.3	53.3	127.7	2.9	4.0	3.3
Total	**121.9**	**102.9**	**224.8**	**4.2**	**6.3**	**4.9**
BORN OUTSIDE AUSTRALIA						
15–19	7.9	8.6	16.5	14.9	19.6	17.0
20 and over—						
20–24	8.3	6.5	14.8	9.4	9.1	9.3
25–34	11.8	10.6	22.4	3.9	7.0	4.9
35 and over	20.1	15.5	35.6	3.2	5.3	3.9
Total 20 and over	40.3	32.6	72.9	4.0	6.3	4.7
Total	**48.2**	**41.1**	**89.3**	**4.5**	**7.4**	**5.5**

(*a*) Civilians aged 15 years and over. For definition *see* page 148.

Labour Force Supplementary Surveys

As explained earlier in this chapter, the quarterly labour force survey questions are regularly supplemented by additional questions on particular aspects of the labour force or on topics of demographic and social interest. A complete list of supplementary surveys is given below.

Title	*Catalogue number*
Alcohol and Tobacco Consumption Patterns, February 1977	4308.0
Annual Leave, August 1974	6317.0
Assisted and Unassisted Migrants, August 1972	3406.0
Australian Ex-Service Personnel, Survey of, November 1966	4403.0
Birth Expectations of Married Women, November 1976	3213.0
Ex-Service Personnel, Widows and Children, November 1971	4403.0
Child Care—	
May 1969; May 1973; May 1977	4402.0
Chronic Illnesses, Injuries and Impairments—	
May 1968; May 1974	4305.0
Evening and Night Work, November 1976	6329.0
Family Status and Employment Status of the Population, November 1974 and November 1975	6223.0
Frequency of Pay—	
August 1974; August 1976; August 1977	6320.0
Income Distribution, 1968–69 (Consolidated and Revised Edition)	6505.0
Income Distribution, 1973–74—	
Part 1	6502.0
Part 2	6503.0
Internal Migration—	
1969–70 to 1972–73 (annually); Twelve months ended April 1972, 1973 and 1974; December 1974; January 1977	3408.0
Job Tenure—	
February 1974; February 1975; August 1976	6211.0
Journey to Work and Journey to School—	
May 1970; August 1974	9205.0
Labour Force Experience—	
During 1968; During 1972; During 1974; During 1975; During 1976	6206.0
Labour Force Status and Other Characteristics of Families, November 1974	6224.0
Labour Mobility—	
November 1972; February 1975; February 1976	6209.0
Leavers from Schools, Universities and Other Educational Institutions, Surveys of—February 1964, 1965, 1966 and 1967; February 1968, 1969 and 1970; February 1971 to February 1974 (annually); May 1975; May 1976; August 1977	6227.0
Multiple Jobholding—	
November 1965; August 1966; August 1967; May 1971; August 1973; August 1975; August 1977	6216.0
Non-school Study Courses, Survey of, August 1968	(*a*)
Persons Covered by Hospital and Medical Expenditure Assistance Schemes, August 1972	4303.0
Persons Aged 15 to 64 Years: Employment Status and Period Since Leaving School, May 1976	6225.0
Persons Not in the Labour Force, November 1975; May 1977	6220.0
Persons Looking for Work—	
May 1976; November 1976; May 1977	6222.0
School Leavers, 1970 to 1974: Their Employment Status and Education Experience in May 1975	6226.0
Superannuation Survey of—	
Victoria, May 1968	(*b*)
February 1974	6319.0
The Labour Force: Country of Birth and Period of Residence, February 1972	6207.0
Trade Union Members, November 1976	6325.0
Weekly Earnings of Employees (Distribution)—	
August 1975; August 1976; August 1977	6310.0
Work Patterns of Employees, November 1976	6328.0

(*a*) No Catalogue No. allocated. Old Reference No. 13.11. (*b*) No Catalogue No. allocated. Old Reference No. 6.19.

Employed wage and salary earners

The figures in this section generally relate only to civilian wage and salary earners, not to the total labour force; they therefore exclude employers, self-employed persons, unpaid helpers and the unemployed. Also excluded, because of the inadequacy of current data, are wage and salary earners in agriculture and private households. For the sake of brevity, wage and salary earners are referred to in the tables as 'employees'. Defence forces are included in the table on page 159.

The estimates are based on comprehensive data (referred to herein as 'benchmarks') derived from the 1971 population census and other relevant sources such as special returns from government bodies and the Bureau's economic censuses and surveys.

The data needed to derive the estimates for periods subsequent to the benchmark date (June 1971) are obtained from three main sources: (*a*) payroll tax returns, (*b*) returns from government bodies, and (*c*) some other current returns of employment (e.g. for hospitals); the balance, i.e. unrecorded private employment, is estimated. At June 1971, recorded employment obtained from the foregoing sources represented about 90 per cent of employees in the industries covered, as determined by the benchmarks. Monthly estimates are published in *Employment and Unemployment* (6213.0).

Although the series measure reasonably well the short-term trends in employment in the defined field, they may be less reliable for longer-term measurement. There are conceptual differences between benchmark and current data, and changes in such factors as labour turnover, multiple jobholding and part-time working all affect the trend over longer periods.

Concepts and definitions

The concepts and definitions applicable to these estimates are those adopted at the 1971 population census and conform closely to the recommendations of the Eighth International Conference of Labour Statisticians. At the census the following questions were asked in respect of all persons fifteen years of age and over:

> 'Did this person have a full or part-time job, or business or farm of any kind last week (even if this person was temporarily absent from a job because of sickness, holidays, industrial dispute, etc.)?'
>
> 'Did this person do any work at all last week for payment or profit (even if this person was working only part-time or helping without pay in a family business)?'

Provided they had not been temporarily laid off by their employers without pay for the whole of the week, persons who answered 'yes' to either of these questions were classified as employed. Persons in this category were classified as wage or salary earners if on their census schedule they were stated to be 'a wage or salary earner' in the job they held in the previous week.

Adoption of new benchmarks

As results from each successive population census become available, it is customary to derive from them new benchmarks for the monthly employment series, and to revise the published estimates for all periods subsequent to the date of the previous census. Benchmarks for June 1971 were established by analysing data from the 1971 population census and other relevant sources such as special returns from government bodies and the Bureau's economic censuses and surveys.

Current data

Current data supplied by reporting enterprises or establishments generally refer to persons on the payroll for the last pay-period in each month. Persons who are on paid leave or who work during part of the pay-period and are unemployed or on strike during the rest of the period are generally counted as employed. Those not shown on employers' payrolls because they are on leave without pay, on strike or stood down for the entire period are excluded.

In all States and Territories, most employers paying wages in excess of a designated exemption level are required to lodge payroll tax returns. Certain Australian Government bodies, religious and benevolent institutions, public hospitals and other similar organisations are specifically exempted under Australian and State Payroll Tax Acts. The following table shows details of recent exemption levels (in dollars per week):

	Queensland	*Western Australia*	*Other States*	*Northern Territory and Australian Capital Territory*
Before January 1976	400	400	400	400
January to December 1976	800	800	800	400
January to June 1977	1,200	923	923	923
July to November 1977	1,600	923	923	923
December 1977	1,600	1,154	923	923
From January 1978	1,923	1,154	1,154	1,154

Private and Government employees

Estimates of private and government employment shown in the table below are on a revised basis designed to achieve uniformity of classification in statistical collections (the principal change being in the classification of public hospitals). The effect of this revision at June 1976 was that government employment estimates were about 150,000 higher and private employment estimates about 150,000 lower than they would have been if the previous classification had been continued. For further details see the February 1977 issue of *Employment and Unemployment* (6213.0).

Government employees comprise not only administrative employees but also all other employees of government bodies (Australian, State, local and semi-government) on services such as railways, road transport, banks, postal and telecommunications, air transport, education (including universities, colleges of advanced education, etc.), radio, television, police, public works, factories, marketing authorities, public hospitals (other than those run by charitable or religious organisations) and departmental hospitals and institutions.

CIVILIAN EMPLOYEES AND DEFENCE FORCES

EXCLUDING EMPLOYEES IN AGRICULTURE AND PRIVATE DOMESTIC SERVICE

('000)

	Civilian employees							
		Government(a)						
June—	*Private*	*Australian*	*State*	*Local*	*Total*	*Total*	*Defence Forces(b)*	*Total*
				MALES				
1971	2,087.6	250.1	494.9	92.2	837.1	2,924.7	80.5	3,005.2
1972	2,075.6	253.9	508.6	102.4	865.0	2,940.6	78.3	3,018.9
1973	(*c*)2,099.3	262.5	517.5	105.9	885.9	(*c*)2,985.2	71.0	(*c*)3,056.2
1974	2,170.7	270.6	528.2	98.8	897.5	3,068.2	64.7	3,132.9
1975	(*c*)2,087.2	280.5	554.7	121.1	956.3	(*c*)3,043.5	65.8	(*c*)3,109.3
1976	2,068.8	275.5	560.3	101.5	937.3	3,006.1	65.3	3,071.5
1977	2,030.7	272.2	574.0	102.3	948.5	2,979.2	66.3	3,045.5
				FEMALES				
1971	1,131.5	89.1	261.6	15.3	366.0	1,497.5	2.7	1,500.2
1972	1,145.0	92.5	274.0	15.9	382.3	1,527.3	2.8	1,530.1
1973	1,215.8	97.9	286.9	17.1	401.9	1,617.7	3.1	1,620.8
1974	1,299.4	108.3	312.7	17.9	438.9	1,738.3	2.9	1,741.2
1975	1,228.5	118.6	342.2	19.9	480.6	1,709.2	3.4	1,712.6
1976	1,237.1	115.5	360.6	19.8	495.9	1,733.0	3.6	1,736.5
1977	1,231.8	116.6	377.0	21.8	515.3	1,747.1	3.8	1,750.9
				PERSONS				
1971	3,219.1	339.2	756.5	107.4	1,203.2	4,422.3	83.2	4,505.5
1972	3,220.6	346.4	782.6	118.3	1,247.3	4,467.9	81.1	4,549.0
1973	(*c*)3,315.0	360.5	804.4	122.9	1,287.9	(*c*)4,602.9	74.1	(*c*)4,677.0
1974	3,470.1	378.9	840.9	116.7	1,336.4	4,806.5	67.6	4,874.1
1975	(*c*)3,315.7	399.0	896.9	141.0	1,436.9	(*c*)4,752.7	69.2	(*c*)4,821.9
1976	3,305.9	391.0	920.9	121.3	1,433.2	4,739.1	68.9	4,808.0
1977	3,262.5	388.8	950.9	124.1	1,463.8	4,726.2	70.1	4,796.3

(*a*) Includes industrial as well as administrative employees. *See* explanation above. (*b*) Permanent defence forces in Australia and overseas. (*c*) Affected by industrial disputes.

Industry

The industry classification used in this section is the *Australian Standard Industry Classification* (*ASIC*), described in the Bureau publication *Australian Standard Industrial Classification, Preliminary Edition, Volume 1* (1201.0). This industry classification is not directly comparable with those adopted for population censuses before 1971 and used in previously-published estimates of civilian employees.

It is expected that in due course a revised series will be published for the period June 1966 to May 1971, classified according to ASIC. However, it may not be possible to provide as much industry detail as for June 1971 and subsequent periods. ASIC estimates cannot be derived for periods prior to June 1966.

CIVILIAN EMPLOYEES: PRINCIPAL INDUSTRIES

Excluding Defence Forces and Employees in Agriculture and Private Domestic Service
('000)

	June—				
ASIC Division(a)	*1973*	*1974*	*1975*	*1976*	*1977*
MALES					
Forestry, fishing and hunting(*b*)	14.2	13.9	15.0	13.7	13.7
Mining	69.7	71.3	74.9	72.9	73.2
Manufacturing	(*c*)940.1	960 5	895.8	888.7	866.0
Electricity, gas and water	90.3	90.5	91.9	91.5	93.0
Construction	381.5	385.7	(*c*)393.3	352.8	342.9
Wholesale and retail trade	536.6	552.8	549.1	558.3	554.9
Transport and storage	211.2	218.4	218.8	214.6	212.2
Communication	69.2	71.7	72.8	71.8	71.1
Finance, insurance, real estate and business services	193.2	202.8	198.3	197.3	197.4
Public administration and defence(*d*)	138.0	143.0	154.0	153.3	152.9
Community services	241.0	252.5	268.7	280.1	291.4
Entertainment, recreation, restaurants, hotels and personal services(*e*)	100.2	105.1	110.9	111.3	110.7
Total	*(c)2,985.2*	*3,068.2*	*(c)3,043.5*	*3,006.1*	*2,979.2*
FEMALES					
Forestry, fishing and hunting(*b*)	0.8	1.0	0.9	1.2	1.1
Mining	5.5	5.5	5.9	5.6	5.8
Manufacturing	347.3	370.9	309.0	308.2	290.2
Electricity, gas and water	8.8	9.1	9.2	9.1	9.1
Construction	17.9	19.1	18.2	18.2	18.1
Wholesale and retail trade	388.7	416.3	406.7	410.1	414.0
Transport and storage	33.9	36.9	36.7	36.2	37.1
Communication	27.3	29.5	29.7	29.3	29.0
Finance, insurance, real estate and business services	171.9	185.0	181.2	183.0	187.6
Public administration and defence(*d*)	67.9	76.0	89.5	90.2	93.3
Community services	397.4	428.4	458.7	480.9	501.1
Entertainment, recreation, restaurants, hotels and personal services(*e*)	150.3	160.5	163.6	161.0	160.6
Total	*1,617.7*	*1,738.3*	*1,709.2*	*1,733.0*	*1,747.1*
PERSONS					
Forestry, fishing and hunting(*b*)	15.0	14.9	15.9	14.9	14.8
Mining	75.1	76.8	80.8	78.5	79.0
Manufacturing	(*c*)1,287.4	1,331.4	1,204.8	1,196.9	1,156.2
Electricity, gas and water	99.2	99.5	101.1	100.5	102.1
Construction	399.4	404.7	(*c*)411.5	371.0	361.0
Wholesale and retail trade	925.4	969.2	955.7	968.4	968.9
Transport and storage	245.1	255.3	255.5	250.8	249.3
Communication	96.6	101.2	102.5	101.1	100.1
Finance, insurance, real estate and business services	365.1	387.9	379.5	380.3	385.0
Public administration and defence(*d*)	205.9	219.0	243.5	243.5	246.1
Community services	638.3	681.0	727.4	761.0	792.4
Entertainment, recreation, restaurants, hotels and personal services(*e*)	250.4	265.7	274.5	272.3	271.3
Total	**(*c*)4,602.9**	**4,806.5**	**(*c*)4,752.7**	**4,739.1**	**4,726.2**

(*a*) Australian Standard Industrial Classification. (*b*) Excludes ASIC Sub-divisions O1 (Agriculture) and O2 (Services to agriculture). (*c*) Affected by industrial disputes. (*d*) Excludes members of the permanent defence forces. (*e*) Excludes ASIC Sub-division 94 (Private households employing staff).

Commonwealth Employment Service

Statutory warrant for the Commonwealth Employment Service (CES) is to be found in the *Re-establishment and Employment Act* 1945 (sections 47 and 48). In brief, the main functions of the CES are to assist people seeking employment to obtain positions best suited to their training, experience and qualifications; and to assist employers seeking labour to obtain employees best suited to their needs. The organisation and functions of the CES conform to the provisions of the Employment Service Convention, 1948 of the International Labour Organisation (ILO), which was ratified by Australia in December 1949. In addition, CES practices accord substantially with the provisions of the ILO Employment Service Recommendation, 1948.

The CES is a part of the Department of Employment and Industrial Relations. There is a central administration in Melbourne and a regional office in the capital city of each State and the Northern Territory. There are 207 offices of the CES in suburban and the larger provincial centres, including eight Professional Employment Offices in the six State capital cities and Canberra and Darwin. The employment offices are distributed as follows: New South Wales 63, Victoria 51, Queensland 36, South Australia 20, Western Australia 22, Tasmania 8, Northern Territory 4 and Australian Capital Territory 3. In addition, there is a total of 52 either full-time or part-time branch offices in the metropolitan and country centres, and 158 CES agents in the smaller country centres.

Fares assistance is available to eligible persons to travel to and return from interviews arranged through CES. Relocation assistance to eligible persons who wish to enter employment at a new location is also available.

Training assistance under the National Employment and Training System (NEAT) is available to eligible persons through CES. Full or part-time training may be undertaken within educational or training institutions, or by correspondence, to assist individuals to obtain suitable employment. Persons approved for training are eligible for living and other allowances. Assistance under the National Apprenticeship Assistance Scheme (NAAS), which encourages the employment of apprentices and also offers living-away-from-home allowances, is also available through CES.

Specialised facilities are provided for young people, Aboriginals, handicapped persons, ex-members of the defence forces, migrants, ex-prisoners and youth trainees, rural workers and persons with professional and technical qualifications. The CES provides vocational guidance and counselling free of charge in all States and has a staff of qualified psychologists for this function. Vocational counselling is available to any person in the labour force or about to enter the labour force as well as to ex-service members and handicapped persons. In New South Wales the CES provides vocational counselling for adults, including ex-service members and the handicapped, while the State Department of Labour and Industry provides a vocational guidance service within the school system and for young persons leaving school.

Specially trained staff visit institutions, hospitals and rehabilitation units to interview and counsel people with complex employment problems. CES provides a supportive information service to intending school-leavers by liaising with schools through its schools' employment program. Since 1971 CES has opened Career Reference Centres which provide occupational information in written and audio visual form for school-leavers, students, parents, and teachers and other professionals in Sydney, Brisbane, Melbourne, Adelaide, Perth, Hobart, Newcastle, Wollongong and Geelong.

All applicants for unemployment benefit under the *Social Services Act* 1947 must register at an office or agency of the CES, which is responsible for certifying whether or not suitable employment can be offered to them. The CES is responsible for assisting all migrant workers sponsored by the Commonwealth Government to obtain suitable employment. This includes recommending the hostels to which migrants should be allocated on arrival and, where necessary, arranging their movement to initial employment. Assistance is also offered to other migrants. Since 1951 it has been responsible for recruiting Australian experts for overseas service and the United Nations Expanded Programme of Technical Assistance (now replaced by the U.N. Development Programme), the World Bank, the Asian Development Bank and the Commonwealth Fund for Technical Co-operation. The principal spheres in which experts have been supplied are agriculture, education, engineering, geology, health, and economic and scientific research and development.

In association with placement activities, regular surveys of the labour market are carried out and detailed information is supplied to interested Commonwealth and State Government departments and instrumentalities and to the public. Employers, employees and other interested persons are advised on labour availability and employment opportunities in various occupations and areas and on other matters concerning employment.

During 1976 there were 1,762,989 applicants who registered for employment, of whom 1,133,129 were referred to employers and 465,567 placed in employment. New vacancies notified numbered 678,943.

Persons registered for employment

The following table shows the number of persons registered with the CES who claimed when registering that they were not employed, and who were seeking full-time employment, i.e. 35 hours or more per week. They include persons referred to employers but whose employment was still unconfirmed, and persons who had recently obtained employment without notifying the CES. All recipients of unemployment benefit are included. Before July 1973, school leavers comprised all persons under the age of 21 who, at the time of registering with the CES, (i) had ceased full-time primary or secondary education within the previous three months; or (ii) were still at school but notified the CES that they would leave school before the end of the school year if a full-time job was available. As from July 1973 (August for New South Wales), school leavers comprise all persons under the age of 21 who, at the time of registering with CES, had ceased full-time primary or secondary education within the previous six months.

PERSONS REGISTERED FOR EMPLOYMENT WITH THE COMMONWEALTH EMPLOYMENT SERVICE

(*Source:* Department of Employment and Industrial Relations)

June(a)	*N.S.W.(b)*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
1972 . .	34,176	25,430	11,693	11,514	12,076	3,498	814	99,201
1973 . .	27,003	22,219	10,636	8,599	8,461	3,718	740	81,376
1974(*c*) . .	28,957	21,258	9,537	7,128	7,782	3,310	855	78,827
1975 . .	94,595	70,360	37,491	19,119	17,003	6,190	1,217	245,975
1976 . .	111,127	66,118	38,586	17,593	21,103	8,986	1,738	265,251
1977 . .	140,957	77,613	48,582	27,590	25,573	8,786	3,692	332,793

(*a*) Generally at Friday nearest end of month. (*b*) Includes Australian Capital Territory. (*c*) The discontinuity between June 1973 and 1974 is caused by a change in definition of school leavers. This change in definition is explained above.

Job vacancies

The following table shows the number of vacancies registered with the Commonwealth Employment Service. The figures refer to vacancies which employers claimed were available immediately or would be available by the end of the following calendar month. Vacancies for full-time, part-time, permanent, temporary and seasonal positions are included. The figures differ substantially from those obtained through sample surveys, as shown below.

VACANCIES REGISTERED WITH THE COMMONWEALTH EMPLOYMENT SERVICE

(*Source:* Department of Employment and Industrial Relations)

June(a)	*N.S.W.(b)*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
1972 . .	8,695	8,411	3,024	1,808	1,564	699	285	24,486
1973 . .	21,532	16,522	6,986	4,362	3,302	1,014	790	54,508
1974 . .	23,160	23,561	6,180	4,231	3,302	1,078	668	62,180
1975 . .	8,984	7,868	2,484	2,381	2,346	823	631	25,517
1976 . .	5,950	7,187	1,605	1,749	1,626	654	423	19,194
1977 . .	6,405	6,816	1,911	1,063	1,760	947	227	19,129

(*a*) Generally at Friday nearest end of month. (*b*) Includes Australian Capital Territory.

Sample surveys of job vacancies have been conducted by the Australian Bureau of Statistics in March each year since 1974 and quarterly since May 1977. A summary of the results of some of these surveys is shown in the table below. More detailed information and explanatory notes are contained in *Job Vacancies, March 1977* (6218.0) and *Job Vacancies, November 1977* (6231.0). For a number of reasons the estimates obtained from these surveys differ substantially from the number of vacancies registered with CES at the same dates, the principal reason being that many vacancies are not registered by employers. For example, the survey estimate of total vacancies in May 1977 was 39,700, while the CES figure was 19,894. Reasons why the survey estimates differ from CES statistics were published in *Job Vacancies, May 1977* (6231.0).

JOB VACANCIES

	Annual surveys				*Quarterly surveys*		
	March				*May 1977*	*August 1977*	*November 1977*
	1974	*1975*	*1976*	*1977*			
	NUMBER OF VACANCIES ('000)						
For males	106.4	31.7	27.8	27.5	18.6	19.7	16.7
For females	39.2	11.3	11.1	7.9	8.1	7.6	5.3
For males and females(*a*)	19.7	12.2	11.8	14.2	12.6	13.8	14.4
Total	**165.2**	**55.2**	**50.8**	**49.6**	**39.3**	**41.0**	**36.4**
	JOB VACANCY RATE (PERCENT)(*b*)						
Persons	3.6	1.3	1.2	1.2	0.9	0.9	0.9

(*a*) Vacancies for males and females are those jobs open to male or female applicants without preference. (*b*) The job vacancy rate is calculated by expressing the number of job vacancies as a percentage of the number of employees plus vacancies.

Labour Turnover

Surveys of labour turnover were conducted annually in the period March 1949 to March 1976. Results of the 1976 survey were published in *Labour Turnover, March 1976* (6210.0).

EARNINGS AND HOURS

Industrial Conciliation and Arbitration

General

Legal minimum rates of pay for most Australian wage and salary earners (87 percent in 1974) are prescribed in awards and determinations of Federal and State industrial arbitration tribunals or in collective agreements registered with them. (In 1974 less than one percent of employees were affected by unregistered collective agreements.)

The main tribunals operative at the end of 1977 were as follows:

Federal Tribunals: Australian Conciliation and Arbitration Commission, Public Service Arbitrator, Flight Crew Officers' Industrial Tribunal, Coal Industry Tribunal.

New South Wales Tribunals: Industrial Commission of New South Wales, Public Service Board of New South Wales.

Victorian Tribunals: Wages Boards, Industrial Appeals Court, Public Service Board, Teachers Tribunal, Police Service Board.

Queensland Tribunals: Industrial Conciliation and Arbitration Commission of Queensland.

South Australian Tribunals: Industrial Commission, Conciliation Committees, Public Service Arbitrator, Teachers Salaries Board.

Western Australian Tribunals: Western Australian Industrial Commission, Western Australian Coal Industry Tribunal, Public Service Arbitrator, Railway Classification Board, Government School Teachers Tribunal.

Tasmanian Tribunals: Industrial Boards, Public Service Board, Public Service Arbitrator.

Federal tribunals

The Australian Conciliation and Arbitration Commission has jurisdiction in respect of the prevention and settlement of industrial disputes extending beyond the limits of any one State. The Commission consists of a President, Deputy Presidents and Commissioners. The work of the Commission is normally done by individual members; however, certain matters such as standard hours, national wage cases, the minimum wage, equal pay principles, annual leave and long service leave must be determined by a Full Bench of the Commission consisting of a number of Presidential members and Commissioners. A Full Bench of the Commission also deals with appeals and references from single members of the Commission and from the Public Service Arbitrator. Where a State law or an award, etc. of a State Tribunal is inconsistent with a Federal award, etc., the latter prevails to the extent of the inconsistency.

Conditions of employment of Federal government employees are regulated by determinations of the Australian Public Service Arbitrator and the Deputy Arbitrators. Appeals and references may be made to the Australian Conciliation and Arbitration Commission.

The Flight Crew Officers' Industrial Tribunal is empowered to prevent and settle industrial disputes involving pilots, navigators and flight engineers of aircraft.

The Coal Industry Tribunal was established under the authority of Federal and New South Wales legislation, and is empowered to determine interstate and New South Wales disputes in the coal mining industry.

State tribunals

State tribunals have jurisdiction over industrial disputes confined within their own State boundaries. For details of the composition and operation of the State tribunals listed above, reference should be made to the various State Year Books.

Determination of rates of pay

The awards, etc. of the various Federal and State tribunals prescribe minimum rates of pay, standard hours of work and other conditions of employment for particular occupations. Most awards also prescribe a minimum wage for adult males and for adult females, i.e. the minimum amount which must be paid to an adult employee, regardless of occupation, for working the standard weekly hours of work. In all awards, etc. except those of Western Australia tribunals, the minimum wage is the same amount for adult females and adult males. The concept of equal pay for the sexes is applicable in most Federal and State awards. In recent years the wage fixing principles of the Australian Conciliation and Arbitration Commission have generally been followed by State tribunals.

As mentioned in Year Book No. 61, page 298, the Australian Conciliation and Arbitration Commission in April 1975 decided to introduce wage indexation in the form of quarterly adjustments to award wages based on increases in the Consumer Price Index. Indexation increases in 1976 and 1977 were as follows: February 1976, 6.4 per cent increase; May 1976, 3 per cent up to a maximum of $3.80 a week; August 1976, 1.5 per cent with a minimum of $2.50 a week; November 1976, 2.2 per cent; March 1977, $5.70 a week; May 1977, 1.9 per cent to a maximum of $3.80; August 1977, 2 per cent; and December 1977, 1.5 per cent.

These increases were applied to all rates of pay prescribed in awards of the Commission, including rates of minimum wage for adult males and adult females. In addition, a further increase of $5 a week was added to the minimum wage in April 1976. At the end of August 1977, the six capital cities' minimum wage in Commission awards was $110.60 a week.

State tribunals generally granted similar wage increases to those of the Australian Commission, including wage indexation increases. For details of increases in Federal and State awards, etc., and for rates of minimum wage for adult males and adult females, *see Wage Rates and Earnings* (6312.0).

For details of wage determination in earlier periods *see* previous issues of the Year Book, the *Labour Report* (last issue 1973) and the 1975 and 1976 issues of *Labour Statistics* (6301.0).

Rates of wage

This section contains indexes (with base: year 1954 = 100) of minimum weekly and hourly rates of wage for adult males and adult females for Australia and each State.

In the indexes there are fifteen industry groups for adult males and eight industry groups for adult females. The indexes are based on the occupation structure existing in 1954. Weights for each industry and each occupation were derived from two sample surveys made in that year: a survey of Awards and a Survey of Award Occupations.

The minimum wage rates used in the indexes are for representative occupations within each industry. They have been derived entirely from representative awards, determinations and collective agreements in force at the end of each month or quarter, commencing with March 1939 for adult males and March 1951 for adult females. Particulars have been available as at the end of each month for adult males from January 1957 and for adult females from July 1967. The index for adult males includes rates and hours for 3,415 award designations. However, as some of these designations are operative within more than one industry or in more than one State, the total number of individual award occupations is 2,313. For adult females the corresponding numbers are 1,100 and 515. Using the industry and the occupation weights derived from the 1954 surveys mentioned above, these rates and hours were combined to give weighted averages for each industry group for each State and Australia.

Because the indexes are designed to measure movements in prescribed minimum rates of 'wages as distinct from 'salaries', those awards, etc. which relate solely or mainly to salary earners are excluded.

Further particulars of wage rates and index numbers will be found in bulletins *Minimum Wage Rates*, March 1939 to June 1965 (6313.0), *Wage Rates Indexes*, June 1965 to June 1968 (6314 0) and *Wage Rates Indexes*, June 1968 to June 1972 (6314.0). Current figures are published in the monthly bulletins *Wage Rates* (6312.0) and *Wage Rates Indexes* (*Preliminary Statement*) (6311.0).

Weighted average minimum weekly wage rates for adult males and adult females covered by Federal awards, etc. and those covered by State awards, etc. (as defined below) are shown separately in the following table. For the purposes of the index, Federal awards, etc. include awards of or collective agreements registered with the Australian Conciliation and Arbitration Commission, and determinations of the Australian Public Service Arbitrator. State awards, etc. include awards or determinations of or collective agreements registered with State industrial tribunals, together with certain unregistered collective agreements when these are dominant in the particular industries to which they refer.

WEEKLY WAGE RATES: ADULT MALES AND ADULT FEMALES, ALL GROUPS, AUSTRALIA(*a*)

WEIGHTED AVERAGE MINIMUM WEEKLY RATES(*b*) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES

	Rates of wage ($)			*Index Nos.* (*Base 1954 = 100*)
End of December—	*Federal awards, etc.*	*State awards, etc.*	*All awards, etc.*	*All awards*
ADULT MALES				
1973 . . .	77.28	78.13	77.69	275.1
1974 . . .	105.64	105.51	105.57	373.8
1975 . . .	119.24	116.39	117.95	417.6
1976 . . .	135.98	134.45	135.29	479.0
1977p . . .	149.37	148.35	148.91	527.3
ADULT FEMALES				
1973 . . .	62.65	67.33	65.16	327.3
1974 . . .	87.62	95.09	91.62	460.2
1975 . . .	102.76	113.69	108.61	545.6
1976 . . .	119.14	131.49	125.75	631.7
1977p . . .	131.92	144.83	138.83	697.4

(*a*) Excludes rural industry. (*b*) As prescribed in awards, determinations and collective agreements.

The following table shows for Australia the weighted average minimum weekly rates of wage and index numbers in each industry group and for all groups (excluding rural industry) at the dates specified.

WEEKLY WAGE RATES: ADULT MALES, INDUSTRY GROUPS

WEIGHTED AVERAGE MINIMUM WEEKLY RATES(*a*) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES

Industry Group	*End of December—* *1973*	*1974*	*1975*	*1976*	*1977p*
RATES OF WAGE(*b*) ($)					
Mining and quarrying(*c*)	82.16	122.79	147.00	168.02	185.29
Manufacturing—					
Engineering, metals, vehicles, etc.	73.40	101.40	110.38	126.83	139.89
Textiles, clothing and footwear	72.76	92.22	108.41	124.27	137.12
Food, drink and tobacco	76.38	101.83	114.90	132.39	145.87
Sawmilling, furniture, etc.	72.60	101.51	111.77	128.15	141.43
Paper, printing, etc.	82.55	107.02	119.16	136.74	150.12
Other manufacturing	76.25	101.77	112.99	129.92	143.12
All manufacturing groups	*74.76*	*101.17*	*111.96*	*128.64*	*141.83*
Building and construction	79.32	110.92	127.14	146.11	160.04
Railway services	71.77	101.94	108.96	124.40	137.57
Road and air transport	77.25	107.48	116.52	133.29	146.68
Shipping and stevedoring(*d*)	93.89	118.19	144.80	164.17	179.17
Communication	102.57	130.75	141.67	160.85	175.98
Wholesale and retail trade	78.76	105.75	117.58	134.99	148.69
Public authority (n.e.i.) and community and business services	81.98	104.19	120.15	138.34	151.93
Amusement, hotels, personal service, etc.	72.38	97.66	108.96	124.98	137.86
All industry groups(*e*)	**77.69**	**105.57**	**117.95**	**135.29**	**148.91**
INDEX NUMBERS (*Base: Weighted Average Weekly Wage Rate for Australia, Year* 1954 = 100)					
Mining and quarrying(*c*)	290.9	434.8	520.5	594.9	656.1
Manufacturing—					
Engineering, metals, vehicles, etc.	259.9	359.0	390.8	449.1	495.3
Textiles, clothing and footwear	257.6	326.5	383.9	440.0	485.5
Food, drink and tobacco	270.5	360.6	406.9	468.4	516.5
Sawmilling, furniture, etc.	257.1	359.4	395.8	453.8	500.8
Paper, printing, etc.	292.3	378.9	421.9	484.2	531.6
Other manufacturing	270.0	360.4	400.1	460.0	506.8
All manufacturing groups	*264.7*	*358.2*	*396.4*	*455.5*	*502.2*
Building and construction	280.9	392.7	450.2	517.4	566.7
Railway services	254.1	360.9	385.8	440.5	487.1
Road and air transport	273.5	380.6	412.6	471.9	519.4
Shipping and stevedoring(*d*)	332.5	418.5	512.7	581.3	634.4
Communication	363.2	463.0	501.6	569.6	623.1
Wholesale and retail trade	278.9	374.5	416.3	478.0	526.5
Public authority (n.e.i.) and community and business services	290.3	368.9	425.4	489.8	538.0
Amusement, hotels, personal service, etc.	256.3	345.8	385.8	442.5	488.1
All industry groups(*e*)	**275.1**	**373.8**	**417.6**	**479.0**	**527.3**

(*a*) As prescribed in awards, determinations and collective agreements. (*b*) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends. (*c*) For mining, rates of wage used are those prescribed for the principal mining centres and include lead bonuses, etc. (*d*) Includes rates of wage (and value of keep) for occupations in the coastal shipping service, other than masters, officers and engineers. (*e*) Excludes rural industry.

The following table shows for Australia weighted average minimum weekly rates of wage and index numbers in each of the industry groups in which the number of females employed is important, and the weighted average for all groups combined, at the dates specified.

WEEKLY WAGE RATES: ADULT FEMALES, INDUSTRY GROUPS

WEIGHTED AVERAGE MINIMUM WEEKLY RATES(a) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES

Industry Group	*End of December—*				
	1973	*1974*	*1975*	*1976*	*1977p*
RATES OF WAGE(*b*) ($)					
Manufacturing—					
Engineering, metals, vehicles, etc.	65.65	93.31	106.85	123.32	136.15
Textiles, clothing and footwear	58.97	81.09	101.11	118.55	131.07
Food, drink and tobacco	62.06	91.36	107.29	124.30	137.30
Other manufacturing	62.06	90.60	107.04	123.32	136.20
All manufacturing groups	*61.24*	*86.67*	*104.22*	*121.19*	*133.91*
Transport and communication	74.17	100.55	112.49	129.26	142.22
Wholesale and retail trade	68.31	98.07	115.21	133.28	147.17
Public authority (n.e.i.) and community and business services	71.81	94.69	113.77	131.49	144.66
Amusement, hotels, personal service, etc.	63.85	90.28	105.06	120.36	133.09
All industry groups(*c*)	**65.16**	**91.62**	**108.61**	**125.75**	**138.83**
INDEX NUMBERS (*Base: Weighted Average Weekly Wage Rate for Australia, Year* 1954 = 100)					
Manufacturing—					
Engineering, metals, vehicles, etc.	329.8	468.7	536.7	619.5	683.9
Textiles, clothing and footwear	296.2	407.3	507.9	595.5	658.4
Food, drink and tobacco	311.7	458.9	538.9	624.4	689.7
Other manufacturing	311.7	455.1	537.7	619.4	684.2
All manufacturing groups	*307.6*	*435.4*	*523.5*	*608.7*	*672.6*
Transport and communication	372.5	505.1	565.1	649.3	714.4
Wholesale and retail trade	343.1	492.6	578.7	669.5	739.2
Public authority (n.e.i.) and community and business services	360.7	475.6	571.5	660.5	726.6
Amusement, hotels, personal service, etc.	320.7	453.5	527.7	604.6	668.5
All industry groups(*c*)	**327.3**	**460.2**	**545.6**	**631.7**	**697.4**

(*a*) As prescribed in awards, determinations and collective agreements. (*b*) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends. (*c*) Excludes rural industry; mining and quarrying; and building and construction.

The average rates of wage in the preceding tables are based on the minimum rates prescribed for selected occupations in awards, etc. for a full week's work, excluding overtime. However, the number of hours constituting a full week's work differs in some instances between the various occupations in each State, and between the same occupations in the several States. For some purposes a better comparison may be obtained by reducing the results in the preceding paragraphs to a common basis, namely the rate of wage per hour. The particulars of weighted average minimum hourly rates of wage for adult males given in the following tables relate to all industries except the rural industry and shipping and stevedoring; for adult females the rates exclude rural industry, mining and quarrying, and building and construction.

HOURLY WAGE RATES: ADULT MALES AND ADULT FEMALES, ALL GROUPS, AUSTRALIA(*a*)

WEIGHTED AVERAGE MINIMUM HOURLY RATES PAYABLE AND INDEX NUMBERS OF HOURLY RATES

	Adult males		*Adult females*	
End of December—	*Rates of wage (cents)(b)*	*Index numbers(c)*	*Rates of wage (cents)(b)*	*Index numbers(c)*
1973 . . .	193.78	273.9	164.25	327.4
1974 . . .	263.97	373.1	230.95	460.3
1975 . . .	294.06	415.6	273.78	545.7
1976 . . .	337.70	477.3	316.99	631.8
1977p . . .	372.02	525.8	349.97	697.6

(*a*) *See* text above. (*b*) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends. (*c*) Base: weighted average hourly wage rate, Australia, 1954 = 100.0.

Standard Hours of Work

In the fixation of weekly wage rates, most industrial tribunals prescribe the number of hours constituting a full week's work (excluding overtime) for the wage rates specified. The hours of work so prescribed form the basis of the compilation of the weighted averages shown below. The main features of the reduction of hours to forty-four, and later to forty, per week were summarised in previous issues of the Year Book. Since January 1948, practically all employees in Australia have had a standard working week of forty hours or less. However the number of hours constituting a full week's work (excluding overtime) differs between occupations and/or States. The weighted average standard hours of work (excluding overtime) prescribed in awards, determinations and collective agreements for a full working week in respect of adult male workers in all industry groups except rural industry and shipping and stevedoring, at 30 September 1977, were: New South Wales, 39.74; Victoria, 39.92; Queensland, 39.84; South Australia, 39.92; Western Australia, 39.80; Tasmania, 39.89; Australia, 39.83. Corresponding figures for adult female workers at 31 December 1977, were: New South Wales, 39.53; Victoria, 39.81; Queensland, 39.70; South Australia, 39.77; Western Australia, 39.78; Tasmania, 39.63; Australia, 39.67.

Male Average Weekly Earnings

The figures in this section are derived from particulars of employment and wages and salaries recorded on payroll tax returns, from other direct collections and from estimates of the unrecorded balance. The figures relate to civilians only. In addition to salary and wage payments at award rates, the total earnings figures used in the calculation of average weekly earnings include the earnings of employees not covered by awards, overtime earnings, over-award and bonus payments, payments made in advance or retrospectively during the period, etc.

Particulars of wages and salaries paid are not available for males and females separately from the sources used for this series; average weekly earnings have therefore been calculated in terms of *male units*, i.e. total male employees plus a proportion of female employees, the proportion being derived from the estimated ratios of female to male average earnings. Different ratios of female to male average earnings, based on information from surveys of earnings and hours and from other sources, are used for individual States and Territories. Ratios used for the June 1977 quarter are as follows: New South Wales 67 per cent, Victoria 67, Queensland 66, South Australia 66, Western Australia 62, Tasmania 64, Northern Territory 62 and the Australian Capital Territory 64. As the number of male units used in calculating Australian average weekly earnings is the sum of the estimates for the States and Territories, a separate ratio for Australia is not used, but the weighted average of the State ratios is approximately 66 per cent. Changes in these ratios may be necessary from one quarter to the next to reflect, for example, the extension of equal pay provisions, or appreciable and sustained changes in the levels of male overtime earnings. However, small differences in these ratios have relatively little effect on the earnings figures: if the ratio is understated by one per cent, then average weekly earnings of $190 would be overstated by about 70 cents.

Annual averages for each State, Territory and Australia are shown in the table below.

AVERAGE WEEKLY EARNINGS PER EMPLOYED MALE UNIT(*a*)

($)

Period	*N.S.W.*	*Vic.*	*Qld.*	*S.A.*	*W.A.*	*Tas.*	*N.T.*(*b*)	*A.C.T.*(*b*)	*Aust.*
1966–67 . .	63.30	64.10	57.30	57.30	59.40	58.50	n.a.	n.a.	61.90
1967–68 . .	66.70	67.80	60.30	60.60	64.10	62 00	n.a.	n.a.	65.50
1968–69 . .	72.30	72.40	64.50	64.80	69.00	65.70	n.a.	n.a.	70.40
1969–70 . .	78.50	78.40	69.40	70.30	75.70	70.90	n.a.	n.a.	76.30
1970–71 . .	87.30	86.40	78.00	77.20	84.90	78.50	n.a.	n.a.	84.80
1971–72 . .	96.30	93.90	87.40	86 00	93.60	87.50	n.a.	n.a.	93.40
1972–73 . .	104 60	102.80	97.10	93.40	98.80	95.20	n.a.	n.a.	101.80
1973–74 . .	121.20	118 80	113.50	110.40	115.00	110.50	n.a.	n.a.	118.30
1974–75 . .	152.10	147.80	142.50	138.60	145.60	140.20	168.50	184.30	148.30
1975–76 . .	172.70	170.50	163.50	185.50	169.10	157.80	190.00	209.00	169.60
1976–77 . .	193.60	191.10	184.50	179.50	190.80	181.30	216.80	237.70	190.70

(*a*) *See* explanation above. (*b*) Estimates for the Northern Territory and the Australian Capital Territory have been calculated on a basis which excludes the effect of varying numbers of Australian Government pay-days in each quarter. Estimates prior to 1974–75 are not available.

Because of the adoption of a new definition of the labour force at June 1966 population census, there is a break in comparability between June and September quarters of 1966 in the employment series used in the calculation of average weekly earnings. For this and other reasons (in particular, the lack of precise information about the ratios of female to male earnings for the States for 1965–66 and earlier years), it is not possible to make a comparable series of State estimates for periods prior to September quarter 1966. However, in order to provide a broad indication of trends over a longer period, estimates for Australia as a whole have been calculated for the period back to September quarter 1961 by methods and on a basis that are as nearly as possible comparable with those used for the current series. Annual averages for this period are: 1961–62, $47.70; 1962–63, $49.00; 1963–64, $51.60; 1964–65, $55.50; 1965–66, $58.00.

For current statistics in this series, reference should be made to the quarterly publication *Average Weekly Earnings* (6302.0).

SURVEYS OF INCOME, EARNINGS AND HOURS

Since 1960 a number of statistical surveys have been undertaken by the ABS in order to obtain information on income, earnings and hours of work in Australia. Particulars of most of the surveys from 1960 to 1974 were shown in earlier issues of the Year Book. Information on the most recent surveys is given below.

Earnings and hours of employees (distribution and composition), May 1977

Preliminary results of the May 1977 survey contained in the tables below relate to the pay-period which included 23 May 1977. Similar surveys were conducted in May each year from 1974, the results of which were published in *Earnings and Hours of Employees, Distribution and Composition* (6305.0).

Scope of survey

All wage and salary earners were represented in the survey except (i) members of the defence forces, (ii) employees in agriculture, (iii) employees in private households employing staff, (iv) waterside workers employed on a casual basis, (v) employees on worker's compensation and (vi) persons employed by private employers (other than hospitals) not subject to payroll tax. At the time of sample selection, payroll tax was payable by employers paying more than $800 a week in wages and salaries in the States, and more than $400 a week in the Territories. In general, Australian Government bodies, religious and benevolent institutions, public hospitals and other similar organisations were specifically exempted under the Australian and State Payroll Tax Acts.

Coverage

The survey covered all Australian and State Government departments and authorities, and stratified random samples of local government authorities, hospitals and private employers subject to payroll tax.

Survey Design

The majority of employers selected were requested to supply relevant details, on separate questionnaires, for only a sample of their employees. Individual employees were randomly selected by the employers in accordance with instructions supplied by the ABS. Employers with fewer than 10 employees were required to complete a questionnaire for every employee.

Definitions

Employees refers to male and female employees on the payroll who received pay for the specified pay period.

Private employees are employees of private employers subject to payroll tax and employees of non-government hospitals not subject to payroll tax.

Government employees are civilian employees of Australian and State government departments, authorities and semi-government bodies, and of local government authorities.

Full-time employees refers to those employees who ordinarily work 30 hours or more a week and who received pay for the last pay period in October. Included are 'full-time' employees on short-time; 'full-time' employees who began or ceased work during the pay period; and 'full-time' employees on paid annual leave, paid sick leave, long service leave and paid holidays taken during the pay period. Some employees (e.g. air crews, teachers, university lecturers), although paid for a weekly attendance of less than 30 hours, were classified as full-time if they worked the normal scheduled hours for a full week.

For *private* employees, *Non-managerial employees* were defined to include minor supervisory employees, leading hands, clerical and office staff as well as ordinary wages employees. They exclude *managerial, executive, professional and higher supervisory staff* who, for private employees, were not further defined. For *government* employees, *managerial, executive, professional and higher supervisory staff* were generally defined as those employees (i) who were ineligible to receive payment for overtime or (ii) who, although subject to payment for overtime, were in charge of a significant number of employees in a separate establishment or establishments. For some occupations in government employment, such as school teachers and doctors, there is no general payment for overtime. In these cases, managerial, etc. staff were determined according to the degree of supervision exercised or in relation to the pay structure of associated administrative employees.

Weekly earnings refers to gross earnings for the specified pay period before taxation and other deductions were made. It includes ordinary time earnings and overtime earnings (as defined below). Where payments were made on other than a weekly basis (e.g. salary paid fortnightly or monthly; paid annual or other leave taken during the specified pay period; periodic payments under incentive, piece-work, profit-sharing, etc. schemes, commissions, etc.), one week's proportion of such payments is included. Pay in advance, retrospective pay and annual or periodic bonuses, etc. are excluded.

Overtime earnings refers to that part of gross weekly earnings (as defined above) for hours paid for in excess of award, standard or agreed hours of work. Overtime earnings were not reported for managerial, etc. staff.

Ordinary time earnings refers to that part of gross weekly earnings (as defined above) for award, standard or agreed hours of work. It includes shift allowances, penalty rates, commissions, bonuses and incentive payments, and that part of paid annual and other leave which relates to these hours.

Standard (or restricted) weekly hours refers to the number of hours constituting a full-week's work for the specified pay period.

Weekly hours paid for refers to the hours for which payment was made. It includes ordinary time hours and overtime hours (as defined below). For employees paid other than weekly, hours are converted to a weekly basis. For employees who began or ceased work or were absent without pay for any reason during the specified week, only the hours actually paid for are included. Where agreed hours of work are less than award hours, hours are based on agreed hours. Hours of work were not reported for managerial, etc. staff.

Ordinary time hours refers to award, standard or agreed hours of work. It includes man-hours of stand-by or reporting time which are part of standard hours of work, and that part of paid annual leave, paid sick leave and long service leave taken during the specified week.

Overtime hours refers to hours in excess of award, standard or agreed hours of work.

Median earnings is the amount which divides the distribution into two equal groups, one having earnings above the median and the other having earnings below it. Medians were calculated from grouped data, linear interpolation being used within the class interval in which the median fell.

Mean (or average) earnings is the amount obtained by dividing the total earnings of a group (e.g., full-time employees) by the number of employees in that group.

Reliability of the estimates

Since the estimates from this survey are based on information obtained from samples of employers and employees, they may differ from the figures that would have been produced if the information had been obtained from all employers and employees. One measure of the likely difference is given by the *standard error*, which indicates the extent to which an estimate might have varied by chance because only a sample was included in the survey. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all employers and employees had been included in the surveys, and about nineteen chances in twenty that the difference will be less than two standard errors.

The figures in Table A below provide an indication of the magnitude of the standard error of estimates of numbers of persons (distribution of weekly earnings) shown in the table on page 172. An example of the use of Table A is as follows: if the estimate for Australia obtained from the sample is 30,000, the standard error is 2,100 (7 per cent), i.e. there are about two chances in three that the true figure is within the range 28,900 to 32,100 and about nineteen chances in twenty that this figure is between 26,800 and 34,200.

Table B indicates the relative standard error of estimates of averages (composition of average weekly earnings and hours). An example of the use of this table is as follows: the tables on the composition of average weekly earnings indicate that average overtime earnings of full-time, male, non-managerial employees aged 21 years and over (Australia) were $17.30. Table B below shows the approximate standard error for this estimate to be 2.5 per cent (i.e. about 40 cents). There are about two chances in three that the true figure is within the range $16.90 to $17.70, and about nineteen chances in twenty that this figure is between $16.50 and $18.10.

The percentage standard errors in Table B relate only to estimates for Australia. Estimates for the States and Territories have higher standard errors, those for New South Wales and Victoria being about 1.5 times and those for the small States about 3 to 5 times as great as those for Australia.

The smaller the estimate the higher is the relative standard error. Estimates with a standard error greater than 15 per cent have not been published, except those relating to overtime earnings and hours; for these categories all estimates with a standard error less than 20 per cent have been published. Estimates with standard errors 20 per cent but not greater than 30 per cent have also been published if the standard errors are not greater than $1.00 or 0.5 hours respectively.

The standard errors for average weekly hours paid for are generally much lower than the corresponding figures shown in Table B for average weekly earnings.

Note. Estimates of average weekly earnings shown in the tables are rounded to the nearest 10 cents, and those of average weekly hours paid for are rounded to the first decimal place. Any discrepancies between sums of components and totals in tables are due to rounding.

TABLE A. APPROXIMATE STANDARD ERRORS OF ESTIMATES OF NUMBERS OF PERSONS

	Size of estimate (persons)						
Standard error	*5,000*	*10,000*	*20,000*	*30,000*	*40,000*	*60,000*	*100,000*
Number . . .	800	1,200	1,800	2,100	2,400	3,000	4,000
Per cent . . .	16	12	9	7	6	5	4

TABLE B. APPROXIMATE STANDARD ERRORS OF AVERAGE WEEKLY EARNINGS, FULL-TIME NON-MANAGERIAL EMPLOYEES, AUSTRALIA
(Per cent)

	Aged 21 years and over			*Aged under 21 years*		
	Manufacturing	*Non-manufacturing*	*Total all industries*	*Manufacturing*	*Non-manufacturing*	*Total all industries*
Males—						
Overtime . .	3.1	3.4	2.5	9.3	10.8	7.4
Ordinary time . .	0.4	0.7	0.5	1.2	0.9	0.7
Total . . .	0.6	0.6	0.5	1.5	1.1	0.9
Females—						
Overtime . .	6.2	8.2	5.9	16.4	8.0	7.2
Ordinary time . .	0.6	1.3	1.2	1.4	0.8	0.7
Total . . .	0.6	1.2	1.1	1.5	0.8	0.7

ALL EMPLOYEES(*a*): WEEKLY EARNINGS, MAY 1977

	Males			*Females*			*Persons*		
Weekly earnings ($)—	*Number* ('000)	*Per cent of total*	*Cumulative per cent of total*	*Number* ('000)	*Per cent of total*	*Cumulative per cent of total*	*Number* ('000)	*Per cent of total*	*Cumulative per cent of total*
Under 10	(*c*)20.4	0.7	0.7	10.4	0.7	0.7	15.2	0.3	0.3
10 and under 20				21.6	1.5	2.2	37.2	0.9	1.2
20 ,, ,, 30	20.8	0.7	1.4	25.3	1.7	3.9	46.1	1.1	2.3
30 ,, ,, 40	16.2	0.6	2.0	27.4	1.9	5.7	43.7	1.0	3.3
40 ,, ,, 50	12.9	0.5	2.4	25.9	1.8	7.5	38.8	0.9	4.2
50 ,, ,, 60	19.9	0.7	3.1	30.0	2.0	9.5	49.9	1.1	5.3
60 ,, ,, 70	30.5	1.1	4.2	40.9	2.8	12.3	71.4	1.6	6.9
70 ,, ,, 80	30.8	1.1	5.3	49.5	3.4	15.7	80.3	1.8	8.8
80 ,, ,, 90	35.8	1.2	6.5	59.5	4.0	19.7	95.4	2.2	11.0
90 ,, ,, 100	31.2	1.1	7.6	60.9	4.1	23.9	92.1	2.1	13.1
100 ,, ,, 110	35.3	1.2	8.8	56.3	3.8	27.7	91.6	2.1	15.2
110 ,, ,, 120	39.7	1.4	10.2	72.8	4.9	32.6	112.5	2.6	17.8
120 ,, ,, 130	62.7	2.2	12.4	107.1	7.3	39.9	169.8	3.9	21.7
130 ,, ,, 140	116.7	4.1	16.4	127.7	8.7	48.6	244.4	5.6	27.3
140 ,, ,, 150	171.6	6.0	22.4	158.8	10.8	59.3	330.4	7.6	34.9
150 ,, ,, 160	211.9	7.4	29.8	146.0	9.9	69.3	357.9	8.2	43.1
160 ,, ,, 170	217.6	7.6	37.3	105.1	7.1	76.4	322.7	7.4	50.5
170 ,, ,, 180	208.0	7.2	44.5	73.7	5.0	81.4	281.7	6.5	57.0
180 ,, ,, 190	189.3	6.6	51.1	56.9	3.9	85.3	246.2	5.7	62.7
190 ,, ;, 200	178.1	6.2	57.3	44.3	3.0	88.3	222.4	5.1	67.8
200 ,, ,, 210	160.6	5.6	62.9	38.8	2.6	90.9	199.4	4.6	72.4
210 ,, ,, 220	142.1	4.9	67.8	30.8	2.1	93.0	172.9	4.0	76.3
220 ,, ,, 230	120.5	4.2	72.0	20.7	1.4	94.4	141.1	3.2	79.6
230 ,, ,, 240	105.8	3.7	75.7	19.3	1.3	95.7	125.0	2.9	82.5
240 ,, ,, 250	89.4	3.1	78.8	15.8	1.1	96.8	105.1	2.4	84.9
250 ,, ,, 260	83.6	2.9	81.7	9.8	0.7	97.4	93.4	2.1	87.0
260 ,, ,, 270	73.6	2.6	84.3	9.3	0.6	98.1	82.9	1.9	88.9
270 ,, ,, 280	57.3	2.0	86.2	(*b*)11.8	0.8	98.9	63.7	1.5	90.4
280 ,, ,, 290	47.3	1.6	87.9				52.7	1.2	91.6
290 ,, ,, 300	48.3	1.7	89.6	(*b*)16.7	1.1	100.0	51.1	1.2	92.8
300 ,, ,, 320	77.5	2.7	92.3				83.4	1.9	94.7
320 ,, ,, 340	49.0	1.7	94.0				51.1	1.2	95.9
340 ,, ,, 360	48.3	1.7	95.6				50.3	1.2	97.0
360 ,, ,, 380	29.6	1.0	96.7				31.1	0.7	97.7
380 ,, ,, 400	23.0	0.8	97.5				23.7	0.5	98.3
400 ,, ,, 450	32.4	1.1	98.6				33.6	0.8	99.1
450 ,, ,, 500	17.7	0.6	99.2				18.0	0.4	99.5
500 and over	22.8	0.8	100.0				23.1	0.5	100.0
Total	**2,878.3**	**100.0**	..	**1,473.0**	**100.0**	..	**4,351.4**	**100.0**	..
					dollars				
Median earnings	188.30	..	..	141.30	..	..	169.30	..	..
Mean earnings	201.10	..	..	138.10	..	..	179.80	..	

(*a*) Full-time and part-time employees, including managerial, etc. staff. See *Definitions* on page 170 for particulars of employees excluded from the survey. (*b*) Although individual figures can be derived by deduction, they have not been shown separately as they are subject to sampling variability too high for most practical uses. See *Reliability of the estimates* on page 171.

COMPOSITION OF AVERAGE WEEKLY EARNINGS AND HOURS FULL-TIME NON-MANAGERIAL EMPLOYEES: INDUSTRIES, MAY 1977

	Aged 21 years and over						*Aged under 21 years*	
	Males			*Females*			*Males*	*Females*
Industry	*Overtime*	*Ordinary time(a)*	*Total*	*Overtime*	*Ordinary time(a)*	*Total*	*Total*	*Total*
AVERAGE WEEKLY EARNINGS ($)								
Manufacturing—								
Food, beverages and tobacco	22.70	163.90	186.60	5.70	142.20	147.90	127.00	110.10
Textiles; clothing and footwear	15.20	161.70	176.80	3.60	135.40	139.10	111.10	103.20
Paper, printing, etc.	19.50	187.30	206.80	*	143.90	148.00	113.40	104.10
Chemical, petroleum and coal products	21.00	182.80	203.80	4.20	150.20	154.40	123.20	112.80
Metal products, machinery and equipment—								
Basic metal products	23.70	183.70	207.40	*	153.40	157.70	135.90	112.90
Fabricated metal products; other machinery, etc.(*b*)	21.10	164.00	185.00	4.10	138.40	142.50	102.70	99.90
Transport equipment	15.10	170.40	185.60	*	139.70	144.50	115.10	120.30
Total metal products, etc.	*19.60*	*170.30*	*189.90*	*4.30*	*139.80*	*144.10*	*112.90*	*104.80*
Other(*c*)	24.00	163.30	187.30	3.20	137.40	140.60	109.00	100.40
Total manufacturing	*20.80*	*169.50*	*190.30*	*4.20*	*139.70*	*143.80*	*114.60*	*105.20*
Non-manufacturing—								
Mining	52.10	228.60	280.70	*	175.50	186.80	176.70	118.80
Electricity, gas and water	16.00	197.90	214.00	*	164.30	166.70	126.40	119.10
Construction	17.10	181.10	198.30	*	156.00	157.30	128.00	105.00
Wholesale trade	11.70	171.20	182.90	2.70	148.40	151.20	112.40	108.50
Retail trade	9.10	163.20	172.30	2.10	142.40	144.50	102.10	95.60
Transport and storage; communication	24.10	190.40	214.50	6.00	163.20	169.20	127.00	124.50
Finance, business services	5.80	189.10	194.90	1.60	159.70	161.30	116.10	107.50
Public administration and defence; community services(*d*)	8.40	208.30	216.80	2.20	181.90	184.10	129.30	126.00
Other(*e*)	12.60	166.10	178.70	*	144.60	150.30	126.10	111.20
Total non-manufacturing	*15.60*	*189.60*	*205.20*	*2.70*	*166.60*	*169.30*	*119.60*	*111.10*
Total all industries	**17.30**	**183.20**	**200.40**	**3.10**	**159.50**	**162.70**	**117.80**	**110.30**
AVERAGE WEEKLY HOURS PAID FOR								
Manufacturing—								
Food, beverages and tobacco	3.4	38.3	41.8	1.0	38.0	39.0	40.6	39.1
Textiles; clothing and footwear	2.5	39.3	41.8	0.7	38.3	39.0	38.3	38.6
Paper, printing, etc.	2.6	39.3	41.9	0.7	38.1	38.9	40.0	39.1
Chemical, petroleum and coal products	2.8	38.6	41.4	0.7	38.1	38.7	40.6	38.6
Metal products, machinery and equipment—								
Basic metal products	3.4	39.1	42.5	0.7	38.6	39.3	40.4	39.0
Fabricated metal products; other machinery, etc.(*b*)	3.2	38.9	42.1	0.8	38.4	39.2	39.9	38.5
Transport equipment	2.1	38.6	40.7	0.9	37.2	38.1	40.0	39.6
Total metal products	*2.9*	*38.8*	*41.7*	*0.8*	*38.2*	*38.9*	*40.0*	*38.7*
Other(*c*)	3.8	39.1	42.9	0.6	38.5	39.1	40.1	39.2
Total manufacturing	*3.1*	*38.8*	*41.9*	*0.8*	*38.2*	*39.0*	*40.1*	*38.9*
Non-manufacturing—								
Mining	6.4	36.5	42.9	*	38.3	40.0	41.3	39.2
Electricity, gas and water	2.1	38.9	41.0	*	37.0	37.3	39.4	37.7
Construction	2.4	39.3	41.7	*	37.4	37.6	39.9	37.8
Wholesale trade	1.7	38.9	40.6	0.5	37.6	38.1	40.5	39.0
Retail trade	1.5	39.6	41.2	0.4	38.9	39.2	40.9	39.7
Transport and storage; communication	3.2	38.2	41.5	0.9	36.7	37.7	40.1	38.5
Finance, business services	0.8	38.5	39.3	0.2	37.3	37.6	39.1	38.1
Public administration and defence; community services(*d*)	1.1	37.9	38.9	0.3	37.4	37.7	38.1	38.6
Other(*e*)	2.1	39.3	41.4	1.0	37.1	38.1	41.1	40.2
Total non-manufacturing	*2.1*	*38.5*	*40.7*	*0.4*	*37.5*	*37.9*	*40.0*	*38.8*
Total all industries	**2.4**	**38.6**	**41.1**	**0.5**	**37.7**	**38.2**	**40.0**	**38.8**

(*a*) *See* definitions on page 170. (*b*) ASIC sub-divisions 31 and 33. (*c*) ASIC sub-divisions 25, 28 and 34 (wood, wood products and furniture; non-metallic mineral products; and miscellaneous manufacturing). (*d*) Excludes defence forces. (*e*) ASIC sub-divisions 03 and 04 (forestry and logging; fishing and hunting) and part of division L (entertainment, recreation, restaurants, hotels and personal services, excluding private households employing staff). * Although individual figures can be derived by deduction, they have not been shown separately as they are subject to sampling variability too high for most practical uses.

AVERAGE WEEKLY EARNINGS, FULL-TIME NON-MANAGERIAL EMPLOYEES, MAY 1977
($)

	Males			*Females*		
State or Territory	*Overtime*	*Ordinary time*	*Total*	*Overtime*	*Ordinary time*	*Total*
			AGED 21 YEARS AND OVER			
New South Wales	18.20	184.80	202.90	3.60	156.00	159.70
Victoria	17.80	182.30	200.20	2.90	159.30	162.20
Queensland	16.10	179.90	196.00	2.80	161.80	164.60
South Australia	11.60	180.40	191.90	2.20	161.40	163.60
Western Australia	22.50	181.10	203.60	2.40	161.70	164.10
Tasmania	13.50	182.60	196.10	*	161.40	164.00
Northern Territory	20.50	206.70	227.20	*	184.50	191.00
Australian Capital Territory	12.20	214.30	226.50	4.40	176.90	181.30
Australia	**17.30**	**183.20**	**200.40**	**3.10**	**159.50**	**162.70**
			AGED UNDER 21 YEARS			
New South Wales	5.80	113.10	118.80	2.20	110.40	112.60
Victoria	5.50	111.90	117.30	2.10	110.80	112.90
Queensland	6.40	113.20	119.60	1.30	102.90	104.20
South Australia	6.30	106.70	113.00	2.00	106.00	107.90
Western Australia	*	108.20	114.20	1.60	102.00	103.60
Tasmania	*	112.50	120.70	*	103.80	105.00
Northern Territory	*	121.30	146.70	*	*	*
Australian Capital Territory	*	122.40	133.80	2.30	126.90	129.10
Australia	**6.10**	**111.70**	**117.80**	**1.90**	**108.40**	**110.30**

* *See* below.

AVERAGE WEEKLY HOURS PAID FOR, FULL-TIME NON-MANAGERIAL EMPLOYEES, MAY 1977

	Males			*Females*		
State or Territory	*Overtime hours*	*Ordinary time hours*	*Total hours*	*Overtime hours*	*Ordinary time hours*	*Total hours*
			AGED 21 YEARS AND OVER			
New South Wales	2.5	38.5	41.1	0.6	37.5	38.1
Victoria	2.6	38.7	41.2	0.5	37.8	38.3
Queensland	2.2	38.6	40.8	0.4	37.8	38.2
South Australia	1.6	39.1	40.7	0.4	37.9	38.2
Western Australia	3.1	38.7	41.8	0.4	38.1	38.5
Tasmania	1.8	39.0	40.9	*	37.8	38.2
Northern Territory	2.8	38.0	40.8	*	37.5	38.3
Australian Capital Territory	1.6	37.7	39.4	0.6	36.8	37.4
Australia	**2.4**	**38.6**	**41.1**	**0.5**	**37.7**	**38.2**
			AGED UNDER 21 YEARS			
New South Wales	1.2	38.6	39.9	0.5	38.3	38.8
Victoria	1.2	38.6	39.8	0.5	38.3	38.8
Queensland	1.3	38.8	40.1	0.3	38.5	38.8
South Australia	1.4	38.9	40.3	0.5	38.4	38.9
Western Australia	1.2	39.1	40.4	0.4	38.6	39.0
Tasmania	1.4	39.1	40.4	*	38.4	38.8
Northern Territory	4.9	38.6	43.5	*	36.6	36.9
Australian Capital Territory	2.5	37.8	40.3	0.4	37.7	38.1
Australia	**1.3**	**38.7**	**40.0**	**0.4**	**38.4**	**38.8**

* Although individual figures can be derived by deduction, they have not been shown separately as they are subject to sampling variability too high for most practical uses.

Earnings and hours of employees, October 1976

Results of this survey, which was conducted in respect of the last pay-period in October 1976, are shown below. More detailed results were published in the bulletin *Earnings and Hours of Employees, October 1976* (6304.0).

Scope of survey. The scope of this survey is the same as that for the May 1977 survey given earlier in this chapter.

Coverage. The survey covered all Australian and State government departments and authorities and stratified random samples of local government authorities, non-government hospitals not subject to payroll tax and other private employers.

Although the sample was not designed to provide estimates of the number of employers represented, it has been calculated that the survey was representative of approximately 2,687,000 male and 1,398,000 female wage and salary earners, comprising 1,779,000 males and 1,000,000 females in private employment and 908,000 males and 398,000 females in government employment.

Definitions

Adults includes all employees 21 years of age and over and those employees who, although under 21 years of age, are paid at the adult rate for their occupation.

Juniors refers to those employees under 21 years of age who are not paid at the adult rate for their occupation.

Weekly earnings refers to the gross earnings for the specified pay period before taxation and other deductions were made. It includes ordinary time earnings and overtime earnings (as defined on page 170). Where payments were made other than on a weekly basis (e.g. salary paid fortnightly or monthly; paid annual or other leave taken during the specified pay period; periodic payments under incentive, piece-work, profit sharing, etc. schemes; commissions; annual or periodic bonuses, etc.), one week's proportion of such payments is included. Pay in advance and retrospective pay are excluded.

Definitions for other items are the same as those for the May 1977 survey shown earlier in this chapter.

Reliability of the estimates

Since the estimates from the survey are based on information which, in some instances, was obtained from samples of employers (see *Coverage* above), they may differ from the figures that would have been produced if the information had been obtained from all employers. One measure of the likely difference is given by the *standard error* (for definition see page 171).

Relative standard errors for the published estimates of average weekly ordinary time earnings and average weekly total earnings are generally less than 2 per cent. Relative standard errors for the published figures of average weekly overtime earnings and hours are generally less than 10 per cent.

AVERAGE EARNINGS AND HOURS: FULL-TIME NON-MANAGERIAL EMPLOYEES, INDUSTRIES, OCTOBER 1976

	Manufacturing									
					Metal products, machinery and equipment					
	Food, beverages and tobacco	*Textiles; clothing and footwear*	*Paper, printing, etc.*	*Chemical, petroleum and coal products*	*Basic metal products*	*Fabricated metal products; other machinery, etc.*	*Transport equipment*	*Total*	*Other*	*Total manufacturing*
	AVERAGE WEEKLY EARNINGS ($)									
Adult males .	177.30	163.20	191.50	196.10	196.60	174.60	175.90	179.70	170.50	178.80
Junior males .	98.10	93.90	105.70	108.20	108.90	93.80	97.10	97.50	91.30	97.00
Adult females .	135.90	124.40	136.10	142.80	152.00	132.60	140.10	135.60	130.50	132.60
Junior females .	90.60	82.70	88.00	98.80	106.50	93.60	95.10	95.20	92.10	89.40
	AVERAGE WEEKLY HOURS PAID FOR									
Adult males .	41.9	41.8	41.1	40.5	41.2	41.4	40.8	41.1	41.5	41.3
Junior males .	40.3	39.8	40.4	39.5	38.7	39.7	39.2	39.4	39.6	39.6
Adult females .	39.1	38.3	39.4	38.7	39.3	38.9	39.4	39.0	38.7	38.8
Junior females .	39.1	38.6	39.3	38.5	39.5	39.0	38.7	39.0	38.8	38.9
	AVERAGE HOURLY EARNINGS ($)									
Adult males .	4.23	3.91	4.67	4.85	4.77	4.22	4.32	4.37	4.11	4.33
Junior males .	2.44	2.36	2.62	2.74	2.81	2.36	2.48	2.48	2.31	2.45
Adult females .	3.48	3.25	3.46	3.69	3.87	3.41	3.56	3.48	3.37	3.42
Junior females .	2.32	2.14	2.24	2.57	2.70	2.40	2.46	2.44	2.37	2.30

	Non-manufacturing										
	Mining	*Electricity, gas and water*	*Construction*	*Wholesale trade*	*Retail trade*	*Transport and storage; communication*	*Finance, business services*	*Public administration, etc.*	*Other*	*Total non-manufacturing*	*Total all industries*
	AVERAGE WEEKLY EARNINGS ($)										
Adult males . .	253.70	200.70	184.50	171.40	159.70	198.30	186.20	205.70	174.20	192.20	187.60
Junior males . .	139.10	113.10	111.70	96.80	90.50	104.60	106.50	109.60	103.20	102.30	100.50
Adult females . .	163.50	158.10	141.10	137.70	136.00	158.00	150.20	174.00	136.90	158.60	151.70
Junior females .	110.50	106.90	98.50	93.40	88.40	102.60	101.60	107.20	88.10	98.90	97.70
	AVERAGE WEEKLY HOURS PAID FOR										
Adult males . .	41.5	40.4	40.6	40.5	41.1	41.4	39.3	38.7	41.2	40.3	40.7
Junior males . .	39.8	39.0	39.6	40.3	40.7	39.8	39.3	37.8	40.7	39.8	39.7
Adult females . .	38.9	37.1	38.3	38.5	39.5	39.3	38.0	37.8	38.4	38.3	38.4
Junior females .	38.9	37.2	38.4	39.0	39.8	39.4	38.6	38.2	38.1	38.8	38.8
	AVERAGE HOURLY EARNINGS ($)										
Adult males . .	6.11	4.97	4.54	4.23	3.89	4.79	4.73	5.31	4.23	4.77	4.61
Junior males . .	3.49	2.90	2.82	2.40	2.22	2.63	2.71	2.90	2.54	2.57	2.53
Adult females . .	4.21	4.26	3.68	3.57	3.44	4.02	3.95	4.60	3.57	4.14	3.95
Junior females .	2.84	2.88	2.56	2.39	2.22	2.60	2.63	2.81	2.31	2.55	2.52

AVERAGE WEEKLY OVERTIME(*a*) AND ORDINARY EARNINGS AND HOURS: FULL-TIME NON-MANAGERIAL EMPLOYEES, STATES, OCTOBER 1976

	Adult males			*Junior males*			*Adult females*			*Junior females*		
	Over-time (a)	*Ordin-ary time*	*Total*	*Over-time (a)*	*Ordin-ary time*	*Total*	*Over-time (a)*	*Ordin-ary time*	*Total*	*Over-time (a)*	*Ordin-ary time*	*Total*
					AVERAGE WEEKLY EARNINGS ($)							
New South Wales	16.30	172.00	188.40	4.10	96.10	100.20	4.10	147.30	151.40	1.60	98.40	100.00
Victoria	16.80	171.30	188.10	4.60	97.60	102.20	3.70	147.40	151.10	1.40	99.10	100.60
Queensland	15.60	170.10	185.70	4.30	96.50	100.80	2.50	148.80	151.30	1.00	91.60	92.60
South Australia	12.50	166.30	178.80	3.80	93.80	97.60	3.10	148.00	151.10	1.80	94.80	96.70
Western Australia	21.40	169.00	190.40	4.90	93.50	98.40	3.10	146.40	149.50	1.40	93.10	94.50
Tasmania	12.80	170.10	182.90	3.50	97.70	101.20	3.00	152.10	155.10	2.10	91.10	93.20
Northern Territory	27.40	181.20	208.70	10.50	100.00	110.40	3.80	160.00	163.90	2.40	101.80	104.20
Australian Capital Territory	11.00	203.40	214.30	(*b*)	102.50	106.60	2.50	166.90	169.50	(*b*)	98.20	99.60
Australia	**16.30**	**171.30**	**187.60**	**4.30**	**96.20**	100.50	**3.60**	**148.20**	**151.70**	**1.50**	**96.20**	97.70
					AVERAGE WEEKLY HOURS PAID FOR							
New South Wales	2.4	38.1	40.5	1.0	38.6	39.6	0.7	37.5	38.2	0.4	38.4	38.8
Victoria	2.6	38.4	41.0	1.1	38.7	39.8	0.7	38.0	38.7	0.4	38.4	38.8
Queensland	2.3	38.0	40.3	1.0	38.5	39.6	0.5	37.9	38.4	0.3	38.4	38.7
South Australia	2.0	38.5	40.5	1.0	38.8	39.8	0.6	38.0	38.6	0.5	38.3	38.8
Western Australia	3.2	38.3	41.4	1.3	38.6	39.9	0.6	38.2	38.8	0.4	38.7	39.1
Tasmania	1.9	38.5	40.4	0.8	39.0	39.8	0.5	37.9	38.4	0.6	38.8	39.4
Northern Territory	3.8	37.4	41.2	2.4	39.2	41.6	0.7	37.1	37.8	0.7	37.6	38.3
Australian Capital Territory	1.6	38.1	39.8	(*b*)	39.1	40.2	0.4	37.0	37.5	(*b*)	37.9	38.3
Australia	**2.4**	**38.2**	40.7	**1.1**	38.7	**39.7**	**0.7**	**37.8**	**38.4**	**0.4**	**38.4**	38.8

(*a*) Average overtime earnings and hours paid for are averages for all employees represented in the survey. (*b*) Information not available because relatively few employees reported.

Weekly earnings of employees (distribution) August 1977

In August 1977 a survey based on the quarterly population survey (*see* the section *The population survey* earlier in this chapter) was conducted throughout Australia in order to obtain information about weekly earnings of all persons aged 15 years and over who were employed as wage or salary earners in their main job.

Some results on weekly earnings of wage and salary earners are presented below. Additional details may be obtained from the publication *Weekly Earnings of Employees (Distribution), August 1977* (6310.0).

In many cases the answer to the question on earnings was based on the knowledge of one person, generally the housewife. Some understatement in the estimates may be expected because of imperfect recall of minor or irregular sources of earnings.

Definitions

Weekly earnings refers to gross weekly wages and salaries from all jobs (i.e. before taxation and other deductions have been made). For persons paid other than weekly, earnings were converted to a weekly equivalent.

Median weekly earnings is the amount which divides the distribution of individuals into two equal groups, one having earnings above the median and the other having earnings below it. Medians were calculated from grouped data with linear interpolation being used within the class interval in which the median fell.

Mean weekly earnings is the amount obtained by dividing the total earnings of a group by the number of units in that group.

Full-time workers are those who usually work 35 hours a week or more and others who, although usually part-time workers, worked 35 hours or more during the survey week.

Part-time workers are those who usually work less than 35 hours a week and who did so during the survey week. When recording hours of work, fractions of an hour were disregarded.

Reliability of estimates

Since the estimates from this survey are based on information obtained from the occupants of a sample of dwellings, they may differ from the figures that would have been produced if the information had been obtained from occupants of all dwellings. One measure of the likely difference is given by the *standard error* (for definition see page 171).

The following estimates have not been shown as they are subject to sampling variability too high (more than 20 per cent) for most practical uses: less than 4,000 for Australia, New South Wales and Victoria; less than 3,000 for Queensland; less than 2,500 for South Australia; less than 2,000 for Western Australia; and less than 1,500 for Tasmania, the Northern Territory and the Australian Capital Territory.

Means and medians are also subject to sampling variability. Standard errors vary according to the size and distribution of the population for which the mean and median have been obtained. Standard errors of means in this survey could generally be expected to be below 7 per cent, and of medians below 8 per cent. For populations of 100,000, the standard errors of the mean and median would both be about 1.5 per cent.

FULL-TIME EMPLOYEES: WEEKLY EARNINGS IN ALL JOBS AND AGE, AUGUST 1977

	Age group (years)								
Weekly earnings ($)	*15–19*	*20–24*	*25–34*	*35–44*	*45–54*	*55–59*	*60–64*	*65 and over*	*Total*
				MALES					
				– '000 –					
Under 60	20.3	*	5.4	5.0	4.1	7.6	5.5	4.0	36.7
60 and under 80	54.4	4.4	4.1						69.5
80 " " 100	55.1	8.4	*	5.7	4.3				78.0
100 " " 110	31.5	13.2	10.2		6.6				70.4
110 " " 120	23.1	20.5	13.5	9.7	10.3	5.9	*		87.2
120 " " 130	21.8	35.7	20 6	22.1	23.1	10.0	6.7	4.2	142.0
130 " " 140	13.9	40.9	32.3	30.0	33.7	15.5	10.9		179.5
140 " " 150	11.9	44.6	58.0	39.5	42.7	16.5	16.4	4.2	231.6
150 " " 160	9.8	48.5	65.0	41.4	51.2	22.9	11.4		252.4
160 " " 170	7.0	41.5	66.5	46.6	44.9	19.7	12.5	4.2	241.1
170 " " 180	6.8	32.7	57.6	38.2	39.1	15.0	10 0		197.1
180 " " 190		27.2	64.7	38.9	35.6	15.0	11.5		196.4
190 " " 200	4.9	23.5	54.8	31.0	29.4	11.2	5.6	4.7	158.5
200 " " 220		30.1	95.2	60 8	47.4	18.7	9.8		266 2
220 " " 240	4.1	16 6	65.7	38.7	34.0	12.1	4.8		174 0
240 " " 260		9.8	62.6	41.3	31.8	8.5	6.6		159.3
260 " " 280		6.5	32.5	27.7	19.7	5.3			95.0
280 " " 300		4.0	27.5	20.3	17.9	4.2	5.3		77.5
300 " " 350		4.8	39.2	34.8	25.5	8 0		*	116.8
350 " " 400		*	12.4	17.1	16.3	4.5		*	54.1
400 " " 450		*	7.5	8 5	9.3	7.6	*	*	30.2
450 and over	*	*	10.8	16.2	15.2				50.4
Total	**264.3**	**419.3**	**809.8**	**573.3**	**542.1**	**207.7**	**123.8**	**23.6**	**2,964.0**
				– dollars –					
Median earnings	101	158	191	193	103	174	167	157	175
Mean earnings	106	166	205	215	209	197	182	182	192
				FEMALES					
				– '000 –			(a)		
Under 60	11.6	6.5	6.4	5.9	6.0	4.8	7.5		27.7
60 and under 80	47.6								62.4
80 " " 100	62.9	8.1	5.2	4.8	4.8				88.3
100 " " 110	32.2	12.8	7.0	9.7	11.7	7.7			78.5
110 " " 120	22.2	20.6	14.1	13.0	12.5				88.6
120 " " 130	16.2	35.0	25.4	24.2	23.5	8.1	4.9		134.9
130 " " 140	5.0	39.1	28.8	19.3	18.9	6.8			120.2
140 " " 150	6.2	40.2	24.7	20.8	24.7	5.5	5.6		124 3
150 " " 160	4.2	38 0	34 9	25.5	21.0	5.8			130 8
160 " " 170	5.6	26.8	24.5	15.5	15.0	5.2			90.5
170 " " 180		22.0	21.1	10 6	7.4	*	5.0		67 8
180 " " 220		41 8	48.1	21.7	22.3	5.1			142.8
220 and over	*	9.9	38.3	21.6	13.8	5.4			92.0
Total	**215.3**	**300.8**	**278.7**	**192.6**	**181.4**	**57.1**	**22.9**		**1,248 8**
				– dollars –					
Median earnings	95	147	158	149	145	142	136		142
Mean earnings	98	151	168	158	152	151	133		147

(*a*) Aged 60 years and over. * Subject to sampling variability too high for most practical uses.

ALL EMPLOYEES: WEEKLY EARNINGS IN ALL JOBS AND FULL-TIME OR PART-TIME STATUS, STATES AND TERRITORIES, AUGUST 1977(a)

MALE FULL-TIME EMPLOYEES

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Australia*
					— '000 —				
Weekly earnings ($)—									
Under 60	11.1	8.5	7.2	4.0	3.0	1.5	1.7	1.5	36.7
60 and under 80	21.0	17.2	11.7	9.4	6.9	2.4			69.5
80 ,, ,, 100	25.7	19.2	12.7	8.3	7.5	4.1	1.7		78.0
100 ,, ,, 110	24.2	18.3	11.6	7.8	5.0	2.6			70.4
110 ,, ,, 120	27.7	23.0	16.5	8.1	6.7	3.7		*	87.2
120 ,, ,, 130	47.2	44.1	22.1	12.3	9.9	5.5	1.6	*	142.0
130 ,, ,, 140	59.0	51.0	29.4	18.8	12.9	5.6		1.7	179.5
140 ,, ,, 150	77.3	68.4	36.6	22.4	17.7	7.0		1.8	231.6
150 ,, ,, 160	88.5	72.5	34.7	26.2	18.9	7.4	1.6	2.6	252.4
160 ,, ,, 170	86.8	68.0	31.8	24.2	19.4	7.8	2.2	2.3	241.1
170 ,, ,, 180	74.1	53.7	24.6	18.7	16.0	6.3		2.1	197.1
180 ,, ,, 190	77.4	52.6	24.8	16.8	14.7	6.8	1.8	2.2	196.4
190 ,, ,, 200	58.7	46.1	18.8	14.0	12.8	4.3		3.2	158.5
200 ,, ,, 220	103.1	72.4	32.7	22.1	23.1	8.0	1.7	3.0	266.2
220 ,, ,, 240	66.9	42.6	23.0	15.4	15.8	4.2	1.7	4.4	174.0
240 ,, ,, 260	64.8	38.5	17.5	11.0	17.9	4.2	2.5	2.9	159.3
260 ,, ,, 280	35.8	23.7	11.3	7.8	9.4	1.8	1.5	3.7	95.0
280 ,, ,, 300	27.3	21.1	11.3	5.4	6.6	2.2	1.7	1.9	77.5
300 ,, ,, 350	44.7	27.3	13.8	9.2	11.6	2.8	1.9	6.3	116.8
350 ,, ,, 400	21.3	11.4	6.4	4.2	5.0	1.6		3.4	54.1
400 ,, ,, 450	10.5	9.2	3.9	3.4	3.8	*	*	2.2	30.2
450 ,, ,, 500	6.2	5.1	3.8						19.3
500 and over	8.3	9.7	5.4	*	3.5	*	*	*	31.1
Total	**1,067.7**	**803.6**	**411.6**	**271.9**	**248.1**	**90.8**	**22.9**	**47.4**	**2,964.0**
					— dollars —				
Median earnings	179	172	167	168	180	167	205	224	175
Mean earnings	194	190	186	183	197	179	217	246	192

MALE PART-TIME EMPLOYEES

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Australia*
					— '000 —				
Weekly earnings ($)—									
Under 20	13.7	9.5	6.2	4.4	4.0	1.8	*	1.7	39.2
20 and under 40	9.2	7.8	3.6	2.8	2.2				26.2
40 ,, ,, 60	4.0	5.9		*	*				13.7
60 ,, ,, 80	5.3	5.9	3.0	4.3	5.2	*	*	*	9.2
80 ,, ,, 100									8.6
100 and over	16.2	11.6	5.1						42.1
Total	**48.5**	**40.8**	**17.8**	**12.6**	**12.4**	**2.7**	*	**3.0**	**139.1**
				— dollars —					
Median earnings	46	50	45	33	40	39	*	46	46
Mean earnings	90	81	77	71	81	65	*	95	84

FEMALE FULL-TIME EMPLOYEES

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Australia*
					— '000 —				
Weekly earnings ($)—									
Under 60	9.6	*	6.9	3.2	2.4	1.5	1.7	4.4	27.7
60 and under 80	17.5	17.7	12.0	7.1	5.8	1.7			62.4
80 ,, ,, 100	26.1	25.7	14.5	9.0	8.7	2.8			88.3
100 ,, ,, 110	29.9	21.6	11.1	6.8	6.0	2.2			78.5
110 ,, ,, 120	31.5	25.6	12.3	10.1	6.1	1.7			88.6
120 ,, ,, 130	49.3	44.2	16.5	12.0	8.3	3.1			134.9
130 ,, ,, 140	46.1	35.2	16.2	9.6	8.0	2.5	1.8	2.1	120.2
140 ,, ,, 150	43.0	32.7	17.5	9.8	13.2	3.7		3.0	124.3
150 ,, ,, 160	49.5	40.3	16.9	10.3	8.2	2.4	1.5	2.5	130.8
160 ,, ,, 170	35.3	26.1	9.3	9.2	5.3	2.4		2.6	90.5
170 ,, ,, 180	29.0	21.2	5.1	5.2	4.1	2.4		1.7	67.8
180 ,, ,, 190	19.2	11.9	4.6	4.6	3.8			2.2	47.6
190 ,, ,, 200	17.9	11.2	5.5	2.5	2.6	2.3	*	1.8	42.0
200 ,, ,, 220	18.0	13.5	7.4	5.7	4.5				53.2
220 ,, ,, 240	12.1	10.3	3.3	3.3	3.3	*	*	2.0	35.6
240 ,, ,, 260	8.4	6.7	3.2	*	*	*	*	*	21.9
260 and over	12.4	10.4	4.0	2.7	3.2	*	*	*	34.5
Total	**454.6**	**358.1**	**166.3**	**112.6**	**94.8**	**30.8**	**7.9**	**23.7**	**1,248.8**
				— dollars —					
Median earnings	144	142	136	138	142	140	157	159	142
Mean earnings	148	148	140	143	146	142	167	163	147

ALL EMPLOYEES: WEEKLY EARNINGS—*continued*

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Australia*
FEMALE PART-TIME EMPLOYEES									
	— '000 —								
Weekly earnings ($)—									
Under 20	23.2	18.7	9.3	8.3	7.6	2.1	2.6	*	70.5
20 and under 40	29.1	22.5	11.6	8.5	8.7	3.0		2.1	85.7
40 ,, ,, 60	24.9	22.4	9.7	8.0	8.6	2.5		*	77.3
60 ,, ,, 80	28.7	27.9	10.7	10.4	11.8	4.0		*	94.9
80 ,, ,, 100	27.4	24.3	6.7	8.9	8.5	2.5		1.7	81.1
100 ,, ,, 110	14.8	11.7	3.3	4.6	2.5	2.3	*	*	38.9
110 ,, ,, 120	8.4	6.7	5.1	2.7	2.4				23.7
120 ,, ,, 130	10.3	5.3		3.3	3.0	*	*	*	24.0
130 ,, ,, 140	1.8	4.0	3.8						12.1
140 ,, ,, 150	6.9			4.5					13.2
150 and over	17.4	11.9	3.2		2.6	*	*	*	* 39.8
Total	195.9	155.5	63.4	59.2	55.6	18.2	3.9	9.4	561.3
	— dollars —								
Median earnings	74	70	62	69	65	68	90	77	70
Mean earnings	80	76	70	73	67	70	93	88	76

(*a*) Since part-time employees are defined as those who usually work less than 35 hours, and who did so in the survey week, this figure may include school teachers, academic staff in universities, aircrew, etc. * Subject to sampling variability too high for most practical uses.

Income distribution, 1973-74

In November 1974, a survey based on the quarterly population survey (*see* the section *The population survey* earlier in this chapter) was conducted throughout Australia in order to obtain information about the distribution of personal and family income within Australia. Details of the income of individuals can be obtained from the publication *Income Distribution*, 1973-74 *Part* 1 (6502.0), while details of family income are available in Part 2 (6503.0).

A similar survey was conducted in November 1969 in respect of individual and family income received during 1968–69. Results of this survey were published in *Income Distribution* 1968–69, *Consolidated and Revised Edition* (6505.0).

Annual leave

The majority of employees in Australia at present receive four weeks paid annual leave.

Four weeks annual leave was granted to State government employees in New South Wales in 1964, South Australia in 1971 and Tasmania in October 1972. Australian Government employees received the entitlement in 1973, as did State Government employees in Victoria, Queensland and Western Australia.

In December 1973, Queensland day workers employed under State awards were granted four weeks paid annual leave. Subsequently, workers covered by State awards in other States were granted similar benefits.

In May 1974, the Australian Conciliation and Arbitration Commission granted four weeks paid annual leave to persons employed under the Metal Industry Award, to accrue from 1 January 1974. As a result, this benefit was extended to other Federal awards. In addition to the leave entitlement, workers also received a leave bonus which varies in amount (but a 17½ per cent addition to leave pay is a common provision in awards).

Long service leave

Paid long service leave, i.e. leave granted to workers who remain with the one employer over an extended period of time, has been included in the provisions of Federal and State industrial legislation and industrial awards. Most employees in Australia are now entitled to at least thirteen weeks paid long service leave after fifteen years continuous employment with the one employer. For employees in certain industries and for some employees of the Australian and State Governments, long service leave entitlements are more generous. In all cases the transfer of ownership of a business does not constitute a break in continuity of service with the same employer.

INDUSTRIAL DISPUTES

Detailed information, including explanatory notes, definitions, etc. on industrial disputes involving stoppages of work, is given in *Labour Statistics* (6101.0). A table showing statistics of industrial disputes for each year from 1913 is contained in the Appendix to *Labour Report* No. 58, 1973. Current statistics are published in the quarterly bulletin *Industrial Disputes* (6322.0). Preliminary monthly figures are published in the statement *Industrial Disputes* (6321.0).

Particulars of all disputes in progress during the year are included in the annual figures, whether the dispute commenced in that year or was in progress at the beginning of the year. Consequently, details of 'the number of disputes' and 'workers involved' in disputes which commenced in any year and were still in progress during the following year are included in the figures for both years.

The following tables give, for Australia as a whole, particulars of industrial disputes which were in progress during the years 1972 to 1976, classified according to industries.

INDUSTRIAL DISPUTES(*a*): INDUSTRIES(*b*), 1972 TO 1976

Year	*Mining*		*Manufacturing*			*Transport and storage; communication*			
	Coal	*Other*	*Metal products, machinery and equipment*	*Other*	*Construction*	*Stevedoring services*	*Other*	*Other industries (c)*	*All industries*
				NUMBER OF DISPUTES					
1972 . .	151	61	787	411	257	235	224	172	2,298
1973 . .	208	132	736	415	276	275	209	287	2,538
1974 . .	201	178	700	422	350	363	227	368	2,809
1975 . .	175	188	681	388	309	279	183	229	2,432
1976(*d*) .	172	203	510	341	302	139	179	209	2,055
				WORKERS INVOLVED (DIRECTLY AND INDIRECTLY) ('000)					
1972 . .	33.6	16.9	505.4	127.4	128.6	52.9	124.6	124.4	1,113.8
1973 . .	34.4	35.7	204.3	114.7	128.8	53.6	53.7	177.6	803.0
1974 . .	55.3	57.1	685.8	151.1	517.3	99.9	124.0	314.4	2,004.8
1975 . .	49.5	33.0	553.5	190.5	158.4	46.9	125.5	240.7	1,398.0
1976(*d*) .	65.7	73.4	484.4	426.2	264.8	35.4	294.7	545.5	2,189.9
				WORKING DAYS LOST ('000)					
1972 . .	60.8	62.0	620.2	393.7	407.8	39.2	205.2	221.2	2,010.3
1973 . .	87.5	155.3	800.8	661.4	439.3	49.5	93.2	347.6	2,634.7
1974 . .	163.0	146.5	2,850.8	756.7	1,188.7	111.1	516.2	559.4	6,292.5
1975 . .	343.3	90.0	1,279.2	464.1	497.0	46.2	146.7	643.5	3,509.9
1976(*d*) .	159.1	215.0	775.0	856.5	535.8	37.1	388.0	832.6	3,799.2
				ESTIMATED LOSS IN WAGES ($'000)					
1972 . .	1,027	1,157	9,776	5,690	7,442	561	3,064	3,358	32,074
1973 . .	1,629	3,320	13,731	10,328	8,006	777	1,665	5,752	45,207
1974 . .	3,657	3,956	54,069	16,016	27,169	1,969	10,301	11,164	128,302
1975 . .	11,457	2,808	33,073	11,990	14,861	1,181	3,737	16,655	95,761
1976(*d*) .	6,165	7,780	22,235	23,866	18,659	1,003	11,573	23,271	114,552

(*a*) Refers only to disputes involving a stoppage of work of ten man-days or more. (*b*) Classified according to Australian Standard Industrial Classification. (*c*) ASIC divisions A, D, F, I to L. (*d*) Includes Medibank stoppages in June and July which involved an estimated 1,574,400 workers and resulted in a loss of 2,057,500 working days and $59,059,900 in wages.

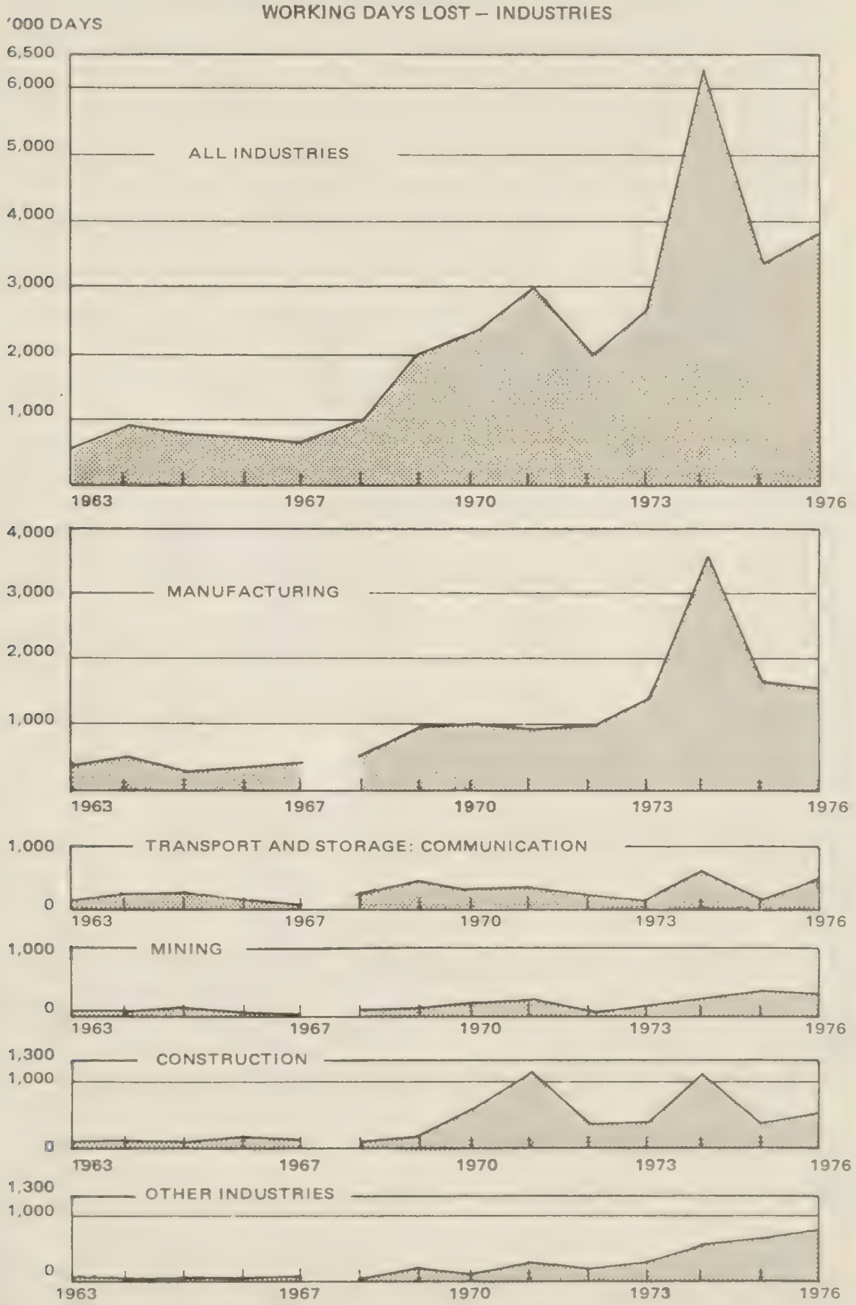
INDUSTRIAL DISPUTES (*a*): WORKING DAYS LOST—INDUSTRIES

('000)

ASIC division (*b*)	*ASIC industry* (*b*)	*1973*	*1974*	*1975*	*1976*
A	Agriculture, forestry, fishing and hunting	1.4	29.3	3.8	1.7
B	Mining	242.8	309.5	433.3	374.2
	Coal mining	87.5	163.0	343.3	159.1
	Other mining	155.3	146.5	90.0	215 0
C	Manufacturing	1,462.2	3,607.6	1,743.3	1,631.6
	Food, beverages and tobacco	325 6	521.2	253.2	397.1
	Textiles; clothing and footwear	23.9	30.7	22.6	61.8
	Textiles	22.7	28.4	20.7	40 6
	Clothing and footwear	1.2	2.3	1.9	21.2
	Wood, wood products and furniture	7.2	12.5	13.0	59.3
	Paper and paper products, printing and publishing	119 9	70 6	63 8	153 5
	Chemical, petroleum and coal products	81.3	32.1	34 5	64.0
	Metal products, machinery and equipment	800.8	2,850.8	1,279.2	775.0
	Basic metal products	248.2	112.2	98 6	189.9
	Fabricated metal products	155.7	310.3	105.7	107.8
	Transport equipment	310.1	209.6	178.9	289.5
	Other machinery and equipment	86.8	113.7	128.6	187.8
	Other manufacturing	103.5	89.7	77.0	120.8
	Non-metallic mineral products	90.3	62.3	47.0	50.4
	Miscellaneous manufacturing	13.3	27.4	30.0	70.4
D	Electricity, gas and water	79.7	75.2	253.4	112.4
	Electricity and gas	43.0	51.1	26.8	88.2
	Water, sewerage and drainage	36.7	24.1	226.5	24.2
E	Construction	439.3	1,188.7	497.0	535.8
F	Wholesale and retail trade	86.9	69.6	203.3	272.3
	Wholesale trade	50.4	34.7	109 0	146 9
	Retail trade	36.5	34.9	94.3	125.3
G,H	Transport and storage; communication	142.7	627.3	192.9	425.1
	Road transport; other transport and storage; communication	27.1	435.4	45.3	202.4
	Road transport	20.3	347.6	37.8	93.4
	Other transport and storage; communication	6.9	87.7	7.4	109.0
	Railway transport; air transport	39.5	65.8	83.6	147.1
	Railway transport	32.5	8.4	78.0	119.4
	Air transport	6.9	57.4	5.6	27.7
	Water transport	76.1	126.1	64.0	75.5
	Stevedoring services	49.5	111.1	46.2	37.1
	Water transport (except stevedoring services)	26.6	15.0	17.9	38.4
I	Finance, insurance, real estate and business services	18.0	12.8	14.0	43.5
J,K	Public administration and defence; community services	131.3	145.2	155.4	223.3
	Health	20.0	34.6	62.4	6.0
	Education, libraries, museums and art galleries	28.0	59.4	45.0	119.4
	Other (*c*)	83.2	51.2	48.0	97.9
L	Entertainment, recreation, restaurants, hotels and personal services	30.4	227.3	13.7	179.5
	Total	**2,634.7**	**6,292.5**	**3,509.9**	**3,799.2**

(*a*) Refers only to disputes involving a stoppage of work of ten man-days or more. (*b*) Australian Standard Industrial Classification. Statistics in this industry detail are available only from 1973. (*c*) ASIC divisions J and K less Health and Education, etc. shown separately.

INDUSTRIAL DISPUTES: AUSTRALIA



NOTE. A break exists in the series between 1967 and 1968, due to adoption of the Australian Standard Industrial Classification (ASIC).

PLATE 29

The following table shows, for the years 1972 to 1976, working days lost in industrial disputes classified according to duration, causes and methods of settlement. Causes (i.e. the direct causes of stoppages of work) are grouped as follows:

Wages—claims involving general principles relating to wages, including combined claims relating to wages, hours or conditions of work. *Hours of work*—claims involving general principles relating to hours of work. *Leave, pensions, compensation provisions, etc.*—claims involving general principles relating to these provisions. *Managerial policy*—disputes concerning managerial policy of employers including computation of wages, hours, leave, etc. in individual cases; docking pay, etc.; dismissals, etc.; principles of promotion, etc.; employment of particular persons and personal disagreements; production limitations, etc. *Physical working conditions*—disputes concerning physical working conditions including safety issues; protective clothing and equipment, etc.; amenities; shortage of, or condition of, equipment or material; new production methods, etc.; arduous physical tasks, etc. *Trade unionism*—disputes concerning employment of non-unionists; inter-union and intra-union disputes; sympathy stoppages; recognition of union activities, etc. *Other*—disputes concerning protests directed against persons or situations other than those dealing with employer-employee relationship; non-award public holidays; accidents and funerals; no reason given for stoppage; etc.

INDUSTRIAL DISPUTES(*a*): DURATION, CAUSES AND METHODS OF SETTLEMENT, WORKING DAYS LOST, 1972 TO 1976

('000)

	1972	*1973*	*1974*	*1975*	*1976*
DURATION(*b*)					
Up to 1 day	437.9	307.0	626.7	401.9	741.5
Over 1 to 2 days	334.1	181.9	662.6	382.0	1,133.8
Over 2 to 3 days	158.9	134.3	277.1	805.3	691.2
Over 3 to less than 5 days	201.1	183.4	474.4	191.1	153.7
5 to less than 10 days	300.3	658.0	3,165.3	378.9	375.1
10 to less than 20 days	328.9	661.3	413.8	820.0	364.0
20 to less than 40 days	242.1	316.0	544.8	426.5	187.4
40 days and over	6.9	192.8	127.7	104.4	152.6
Total	**2,010.3**	**2,634.7**	**6,292.5**	**3,509.9**	**3,799.2**
CAUSES(*c*)					
Wages	1,358.5	1,745.9	5,555.6	2,565.0	698.7
Hours of work	2.5	22.2	13.0	20.2	58.0
Leave, pensions, compensation provisions, etc.	45.6	68.1	39.1	10.1	111.4
Managerial policy	301.8	387.3	280.2	405.6	574.2
Physical working conditions	76.7	153.0	99.4	95.9	130.0
Trade unionism	77.4	125.2	165.2	211.7	119.0
Other	147.7	133.0	140.0	201.4	2,107.8
Total	**2,010.3**	**2,634.7**	**6,292.5**	**3,509.9**	**3,799.2**
METHODS OF SETTLEMENT(*d*)					
Negotiation	430.7	761.6	1,338.8	607.1	554.8
Mediation	15.3	46.2	5.6	35.1	9.9
State legislation—					
(*a*) Under State conciliation, etc., legislation	239.0	393.1	366.1	479.3	360.6
(*b*) Intervention, etc. of State Government officials	..	..	..	1.7	1.5
Federal and joint Federal State legislation(*e*)	229.9	521.8	3,284.8	1,440.1	384.0
Filling the places of workers on strike or locked out	..	..	0.2	0.3	..
Closing down the establishment permanently	..	..	0.1	..	1.6
Resumption without negotiation	1,095.3	912.0	1,296.9	936.8	2,486.6
Other methods	..	..	..	9.6	0.2
Total	**2,010.3**	**2,634.7**	**6,292.5**	**3,509.9**	**3,799.2**

(*a*) Refers only to disputes involving a stoppage of work of ten man-days or more. (*b*) In working days. (*c*) For nature of classification, see *text above*. (*d*) Method directly responsible for ending the stoppage of work. (*e*) Includes Industrial Tribunals under (i) Conciliation and Arbitration Act, (ii) Coal Industry Acts, (iii) Stevedoring Act, (iv) Other Acts, and intervention, etc. of Federal government officials.

The following table shows the number of working days lost per 1,000 employees in the years 1972 to 1976. Figures are given both for all causes, and excluding those causes where the employer/employee relationship is not involved. For classification of causes *see* grouping on page 184.

INDUSTRIAL DISPUTES: WORKING DAYS LOST PER 1,000 EMPLOYEES

	1972	*1973*	*1974*	*1975*	*1976*
All causes	449	570	1,320	742	803
All causes excluding those not involving employer/employee relationship(*a*)	416	541	1,290	700	357

(*a*) See text above.

LABOUR ORGANISATIONS

Labour organisations in Australia

Trade unions

For the purpose of these statistics *a trade union* is defined as an organisation consisting predominantly of employees, and whose principal activities include the negotiation of rates of pay and conditions of employment for its members. Returns showing membership by States and Territories at 31 December each year are obtained for all trade unions and employee organisations. Results of this collection are published in the annual bulletin *Trade Union Statistics: Australia* (6323.0). The following table shows the position at the end of each of the years 1973 to 1976.

TRADE UNIONS: NUMBER, MEMBERSHIP AND PROPORTION OF TOTAL EMPLOYEES

End of December—	*Number of separate unions(a)*	*Number of members ('000)*		*Proportion of total employees (per cent)*
		Males	*Females*	
1973	294	1,904.9	755.0	55
1974	286	1,975.3	798.3	56
1975	280	1,966.0	847.9	58
1976	282	1,950.6	841.3	57

(*a*) Without inter-state duplication.

In the table above the approximate percentages of wage and salary earners in employment who were members of trade unions are shown. The estimates of employees have been derived by adding figures for employees in agriculture and in private households employing staff to the estimates of employees in all other industries as at the end of each year. The percentages shown should be regarded as giving only a broad indication of the extent of union membership among wage and salary earners because they are based on estimates of *employed* wage and salary earners that are subject to revision. The degree of unemployment of reported union members would affect the percentages for a particular year and comparison over time.

TRADE UNIONS: CLASSIFICATION ACCORDING TO NUMBER OF MEMBERS, 1976

Number of members	*Separate unions*		*Members*	
	Number	*Proportion of total*	*Number*	*Proportion of total*
		(per cent)	('000)	(per cent)
Under 100	29	10.3	1.3	0.1
100 and under 250	32	11.3	5.0	0.2
250 ,, ,, 500	32	11.3	11.2	0.4
500 ,, ,, 1,000	42	14.9	29.6	1.1
1,000 ,, ,, 2,000	37	13.1	52.7	1.9
2,000 ,, ,, 5,000	38	13.5	119.6	4.3
5,000 ,, ,, 10,000	21	7.5	147.8	5.3
10,000 ,, ,, 20,000	13	4.6	185.6	6.6
20,000 ,, ,, 30,000	9	3.2	217.2	7.8
30,000 ,, ,, 40,000	8	2.8	279.6	10.0
40,000 ,, ,, 50,000	5	1.8	225.1	8.1
50,000 ,, ,, 80,000	7	2.5	430.7	15.4
80,000 and over	9	3.2	1,086.6	38.9
Total	**282**	**100.0**	**2,791.9**	**100.0**

In November 1976 a survey based on the population survey (for details *see* the section *The Population Survey* earlier in this chapter) was conducted throughout Australia in order to obtain information about the industry and occupation and some of the demographic characteristics of wage and salary earners who were members of trade unions. Results of the survey are published in *Trade Union Members, November 1976* (6325.0).

Employer and employee organisations registered under Industrial Arbitration Acts, etc.

The Federal *Conciliation and Arbitration Act* 1904–1976 and a number of State industrial arbitration Acts provide for the registration of employer and employee organisations as outlined below. In general, registration is necessary before an organisation may appear before the relevant industrial arbitration tribunal.

In Victoria and Tasmania, where wages and conditions of work in the State sphere are determined by Wages Boards, there is no provision in industrial arbitration legislation for registration of trade unions or employer organisations.

Federal. At the end of 1976 the number of employers' organisations registered under the provisions of the *Conciliation and Arbitration Act* 1904–1976 was 78. The number of unions registered at the end of 1976 was 147, with membership of 2,348,700, representing 84 per cent of the total membership of all trade unions in Australia. Lists of organisations of employees and employers registered under this Act are contained in the *Industrial Information Bulletin*, Vol. 30 No. 1, January 1975 published by the former Department of Labor and Immigration.

New South Wales. At 30 June 1977 there were 114 employee unions and 294 employer unions registered under provisions of the *Industrial Arbitration Act* 1940, and 128 employee unions, 15 employer unions, and 2 other unions registered under the *Trade Union Act* 1881–1972. Lists of unions registered under these Acts are included in the *New South Wales Industrial Gazette*. (*See* Vol. 206 Part 1 for details at 30 June 1977.)

Queensland. At 31 December 1976 there were 75 employee unions registered under the *Industrial Conciliation and Arbitration Act* 1961-1976 with a reported membership of 348,451. At the same date, 41 employer unions with a reported membership of 37,565 employers were registered. Lists of registered employee and employer unions are published in the annual report of the President of the Industrial Court.

South Australia. At the end of December 1976 there were 7 employer associations and 72 employee associations registered under the provisions of the *Industrial Conciliation and Arbitration Act* 1972 as amended. Membership of these employee associations totalled approximately 212,000.

Western Australia. At 30 June 1977 there were 80 unions of workers, with an aggregate membership of 185,186, registered under the provisions of the *Industrial Arbitration Act*, 1912–1976. At the same date there were 15 registered unions of employers with a reported aggregate membership of 2,021 employers. Lists of registered unions of workers and of employers, together with membership figures, are published in the *Western Australian Industrial Gazette*. (*See* Vol. 56, Appendix XVIII.)

Central Labour Organisations

There are four main central labour organisations in Australia: the *Australian Council of Trade Unions*, which came into being in 1927, had approximately 130 unions and Trades and Labour Councils affiliated with it in 1977; the *Council of Australian Government Employee Organisations*, formed in May 1969 by a conference of delegates from 19 affiliated associations of employees with an aggregate membership of approximately 100,000 in the Australian Public Service and instrumentalities; the *Council of Professional Associations* which was formed in 1956 and, at the end of 1977, had 10 organisations with aggregate membership of approximately 32,000 affiliated with it; and the *Australian Council of Salaried and Professional Associations*, formed in 1956 as a council of industrial associations for the purpose of co-ordinating industrial activities on common problems, which had 38 associations with an aggregate membership of approximately 400,000 affiliated with it at the end of 1977.

International Labour Organisation

The International Labour Organisation (ILO) was established on 11 April 1919, as an autonomous institution associated with the League of Nations. Its original constitution was adopted as Part XIII of the Treaty of Versailles. With certain amendments this constitution remains the charter of ILO to this day, bringing governments, employers and trade unions together to discuss international labour and social problems. A new definition of the aims and purposes of the ILO known as the Declaration of Philadelphia, which was added to the constitution at the 1944 Session of the International Labour Conference, asserted the responsibility of ILO in combating poverty and insecurity. In 1946 the Organisation became the first of the specialised agencies of the United Nations. Under the terms of agreement, the United Nations recognises the ILO as a specialised agency having responsibility in the field defined by its constitution, which embraces labour conditions, industrial relations, employment organisation, social security and other aspects of social policy.

The Organisation has three basic parts: the International Labour Conference, its highest authority, which usually meets annually; the Governing Body, its executive council, which usually meets three times each year; and the International Labour Office, which provides the Secretariat of the Organisation. The Conference is composed of delegations from the member States of the Organisation. In June 1977 there were 135 member States, each of which is entitled to be represented by four delegates two representing the government, one representing employers and one representing workers, together with their advisers. Each delegate speaks and votes independently, so that all points of view in each country are fully expressed. The Governing Body consists of the representatives of twenty-eight governments and fourteen employers' and fourteen workers' representatives. Particulars of the proceedings of International Labour Conferences up to the 58th Session and details of ILO conventions ratified by Australia are given in *Labour Report* No. 58, 1973, pages 255–59.

CHAPTER 9

SOCIAL SECURITY AND WELFARE

This chapter describes social welfare services provided by the Commonwealth Government (through the Departments of Social Security, Aboriginal Affairs and Veterans' Affairs), the State Governments and voluntary welfare organisations. Details of services administered by the Commonwealth Department of Health are given in the Health chapter. For information on the many important welfare services provided by the State and local governments, especially in the fields of child and Aboriginal welfare, reference should be made to the State Year Books and annual statistical bulletins, and the annual reports of the State departments concerned. Details of pension and superannuation schemes for government and semi-government employees, mine workers, parliamentarians, and employees of private business are included in the Private Finance chapter.

AUTHORITIES OF THE COMMONWEALTH GOVERNMENT, SOCIAL SECURITY AND WELFARE CASH BENEFITS TO PERSONS

($'000)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Assistance to aged persons—					
Age pensions	680,322	887,750	1,146,387	1,612,451	2,129,366
Delivered meals	226	398	958	968	1,288
Personal care	1,830	3,273	4,949	7,651	9,493
Telephone concessions	3,806	4,172	5,394	7,053	10,577
Total	*686,184*	*895,593*	*1,157,688*	*1,628,123*	*2,150,724*
Assistance to incapacitated and handicapped persons—					
Invalid pensions	138,194	184,699	226,022	306,477	407,056
Sheltered employment allowances	742	1,161	1,418	3,075	9,778
Handicapped children's benefits	438	429	582	2,469	9,678
Rehabilitation services	3,945	4,658	6,203	9,329	11,564
Total	*143,319*	*190,947*	*234,225*	*321,350*	*438,076*
Assistance to unemployed and sick persons—					
Unemployment benefits	25,997	46,553	58,246	251,740	506,000
Sickness benefits	15,906	26,610	41,407	62,833	90,961
Special benefits	2,851	4,368	6,983	10,992	17,154
Structural adjustment assistance	. .	. .	. .	51,040	8,489
Other	. .	80	44	20	24
Total	*44,754*	*77,611*	*106,681*	*376,625*	*622,628*
Assistance to ex-servicemen(*a*)—					
Disability and dependants pensions and allowances	260,150	297,087	355,561	469,537	559,556
Other benefits	4,058	3,720	4,025	4,227	4,095
Total	*264,208*	*300,807*	*359,586*	*473,764*	*563,651*
Assistance to widowed and deserted spouses—					
Widows' pensions	104,627	140,505	180,957	241,389	325,260
Assistance to families and children—					
Family allowances	216,581	253,860	225,360	224,848	265,462
Maternity allowances	8,617	7,970	7,782	7,506	7,211
Supporting mothers' benefits	. .	. .	40,586	76,092	127,230
Orphans' pensions	. .	. .	458	1,381	1,775
Total	*225,198*	*261,830*	*274,186*	*309,827*	*401,678*
Other social security and welfare programs—					
Funeral benefits	1,583	1,579	1,578	1,641	1,526
Telephone rental concessions n.e.c.	802	863	1,024	1,299	1,762
Emergency assistance to wool-growers(*b*)	187	. .	. .	. .	. .
Compassionate allowances	98	104	104	95	94
Assistance to homeless persons	. .	. .	. .	275	677
Other	132	134	378	505	511
Total	*2,802*	*2,680*	*3,084*	*3,815*	*4,570*
Total social security and welfare	1,471,092	1,869,973	2,316,407	3,354,893	4,506,587

(*a*) For details *see* section on Veterans' Affairs in this Chapter. (*b*) For details *see* Chapter 22, Rural Industry, Year Book No. 61.

GOVERNMENT OUTLAY ON SOCIAL SECURITY AND WELFARE

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
			($Million)		
Final consumption expenditure	113	135	170	257	333
Expenditure on new fixed assets	10	9	21	21	28
Final expenditure	*122*	*144*	*191*	*278*	*361*
Cash benefits to persons—					
Commonwealth	1,471	1,870	2,316	3,355	4,507
State and local	32	46	43	54	71
Other transfers to private sector for social security and welfare (*a*)	21	31	34	72	115
Other outlay	2	1	3	1	6
Total outlay	**1,648**	**2,092**	**2,586**	**3,761**	**5,060**
			(Per cent)		
As per cent of government outlay, all purposes	13.7	15.6	16.0	16.5	18.4
			($)		
Final expenditure per head	9.3	10.8	14.2	20.3	26.1
			($)		
Commonwealth, State and local cash benefits per head	115.0	144.3	174.9	248.9	330.6
			(Per cent)		
Final expenditure as per cent of gross domestic product	0.33	0.34	0.38	0.46	0.51

(*a*) Mainly grants for private capital purposes.

SOCIAL SECURITY

Commonwealth Government expenditure on social security services

This section deals with various government payments for the relief of the aged, indigent, infirm, widowed, orphaned and unemployed; assistance to families; etc. For summary statements of cash payments to persons made by public authorities under various functional heads, *see Public Authority Finance* and other annual bulletins listed at the end of this chapter.

Under the provisions of Section 51 of the Constitution, the Commonwealth Government is empowered to legislate on:

'(xxiii) Invalid and old age pensions:

'(xxiiiA) The provision of maternity allowances, widows' pensions, child endowment, unemployment, pharmaceutical, sickness and hospital benefits, medical and dental services (but not so as to authorize any form of civil conscription), benefits to students and family allowances;'.

On 1 July 1947, with the passage of the *Social Services Consolidation Act* 1947, all Acts providing social service benefits were amalgamated. The Act is at present styled the *Social Services Act* 1947.

The social security benefits provided by the Commonwealth Government under the *Social Services Act* 1947, and the date on which each came into operation, are shown on page 421 of Year Book No. 61. In addition, a Supporting Parent's Benefit, replacing the Supporting Mother's Benefit, was introduced in November 1977.

Age and invalid pensions and associated payments

Age pensions are payable to residentially qualified men and women who have reached the ages of 65 and 60 respectively. They are subject to an income test unless the person is permanently blind or has reached the age of 70. They are also subject to tax.

To be residentially qualified for age pension a person must generally be living in Australia on the date of application for the pension and have lived in Australia for ten years continuously at some time. If a person has completed five years but not ten years continuous residence at some time, and has lived in Australia for periods which exceed a total of ten years, the period of continuous residence otherwise required is reduced by the total of his periods of residence in Australia in excess of ten years. Any periods of absence during which a person's home remains in Australia and absences in certain other circumstances may be counted as residence, and any absence in an external Territory other than Norfolk Island counts as residence in Australia. Residence in New Zealand or the United Kingdom may be treated as residence in Australia.

Invalid pensions are payable to persons sixteen years of age and over who are permanently incapacitated for work to the extent of at least eighty-five per cent, or permanently blind. In the former case, they are subject to an income test.

There is no residence qualification for invalid pension if the incapacity or permanent blindness occurred within Australia (including an external Territory other than Norfolk Island) or during temporary absence from Australia. As a result, some people not residentially qualified for age pension but who have reached age pension age receive an invalid pension. Invalid pension is subject to tax in these cases but not in others.

A wife's pension is payable to the wife of a pensioner not entitled, in her own right, to an age, invalid or repatriation service pension. There is no residence qualification, but an income test applies, A wife's pension is taxable only if her husband has reached the age of 65.

Rates of pension. The maximum standard rate was increased to $2,449 per annum ($47.10 a week) from May 1977. This is payable to a single, widowed or divorced pensioner, or a married pensioner whose spouse is not receiving a pension or a tuberculosis allowance. The standard rate may also be paid to each of a married pensioner couple who are living apart for an indefinite period due to illness or infirmity of either or both. The maximum rate for a married pensioner couple (known as the married rate) was increased to $4,082 per annum ($78.50 a week) from May 1977 (i.e. $2,041 per annum or $39.25 a week each). For a married person whose spouse receives a tuberculosis allowance or a service pension, the maximum rate is also $2,041 per annum ($39.25 a week).

Additional pension for each dependent child under 16 years is payable, subject to the income test, at the rate of up to $390 per annum ($7.50 a week). Widowed or other unmarried age or invalid pensioners with a dependent child may receive a guardian's allowance of up to $4 a week, or up to $6 a week if the child is under 6 years of age or is an invalid child requiring full-time care. A guardian's allowance is also subject to the income test. Eligibility for the additional pension for children is extended to include a child over sixteen years provided he is wholly or substantially dependent on the pensioner and is receiving full-time education at a school, college or university. Supplementary assistance of up to $5 a week (standard rate pensioners) and $2.50 a week (married rate pensioners) subject to a special income test, is available to pensioners if they pay rent or pay for board and lodging or for lodging.

On the death of one member of a married pensioner couple, the surviving pensioner spouse becomes entitled to receive, for up to six fortnightly instalments, the equivalent of the two pensions that would have been paid if the spouse had not died. For the purpose of this provision the term 'pensioner' includes a person in receipt of age, invalid, wife's or repatriation service pension, or a sheltered employment allowance.

A table showing the maximum rates of pension operating since 1 July 1909 at dates prior to 14 October 1965 is included on page 608 of Year Book No. 51. Details of the respective rates and allowances payable in recent years are shown in the Annual Reports of the Department of Social Security.

The income test is the same for age and invalid pension purposes. As already noted, it does not apply to the permanently blind or, in the case of age pensions, to people who have reached 70 years of age. In other cases, the income test operates to reduce pension payable if a claimant's *income as assessed* in effect, the claimant's annual income including income from property—exceeds prescribed limits. In the case of a person entitled to the standard rate of pension, the limit is $1,040; in other cases, it is $897. If income as assessed exceeds these figures, half the excess is subtracted from the appropriate maximum rate of pension. If income as assessed does not exceed these figures, the appropriate maximum rate is payable.

The effect of the income test is to preclude from entitlement to any pension a person subject to the income test and whose income exceeds $114.20 a week. The corresponding figure for a married couple without children is $95.75 a week (each partner).

Supplementary assistance is subject to a special income test, the effect of which is to reduce the maximum annual rate by the excess of a person's income as assessed over $52 (standard rate pensioner) or half the excess of income as assessed over $52 (married rate pensioners).

Certain types of income are exempted. The main exemptions are: gifts or allowances from children, parents, brothers, or sisters; benefits from friendly societies; child or student endowment; Commonwealth Government health benefits and amounts received from registered hospital or medical benefit organisations. The amount of a pensioner's income included in income as assessed may also be reduced by up to $312 per annum ($6 per week) for each dependent child under sixteen years or full-time student in the pensioners' care.

For the purposes of the income test, the income as assessed of a married person is normally taken to be half of the combined income as assessed of the married couple. Exceptions may be made where the spouses are legally separated or where other special circumstances exist.

AGE AND INVALID PENSIONERS, BY MARITAL STATUS: 30 JUNE 1977

('000)

	Age pensioners			*Invalid pensioners*		
Marital status	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
Single(*a*)	36.8	84.2	121.0	47.0	31.7	78.7
Married	271.8	295.5	567.3	71.0	19.7	90.7
Widowed	73.9	412.5	486.4	9.9	13.0	22.9
Divorced	7.9	22.7	30.6	5.3	5.4	10.7
Total	**390.5**	**814.9**	**1,205.3**	**133.2**	**69.8**	**203.0**

(*a*) Includes married but permanently separated.

AGE PENSIONERS, BY AGE: 30 JUNE 1977

	60–64 years	*65–69 years*	*70–74 years*	*75 years and over*	*Total*
			('000)		
Males	..	121.1	135.7	133.7	390.5
Females	158.6	189.4	181.5	285.5	814.9
Persons	**158.6**	**310.5**	**317.2**	**419.1**	**1,205.3**
			(Per cent)		
	13.2	**25.8**	**26.3**	**34.8**	**100.0**

INVALID PENSIONERS, BY AGE: 30 JUNE 1977

	16–19 years	*20–44 years*	*45–59 years*	*60–64 years*	*65 years and over*	*Total*
			('000)			
Males	3.7	28.3	49.5	37.1	14.7	133.2
Females	3.2	23.1	37.8	4.8	0.8	69.8
Persons	**6.9**	**51.4**	**87.3**	**42.0**	**15.5**	**203.0**
			(Per cent)			
	3.4	**25.3**	**43.0**	**20.7**	**7.6**	**100.0**

AGE AND INVALID PENSIONS: SUMMARY

		1972–73	*1973–74*	*1974–75*	*1975–76*	*1976–77*
Age pensions—						
Number admitted during year		159,564	155,577	140,966	127,980	111,986
Number at end of year		931,812	1,027,582	1,097,225	1,158,657	1,205,347
Per cent of aged population(*a*)	%	67.8	72.9	76.1	75.4	n.a.
Total payments during year(*b*)	$'000	887,750	1,146,387	1,612,468	2,129,366	2,483,563
Average weekly pension at end of year(*b*)	$	19.70	23.99	33.09	37.68	43.04
Invalid pensions—						
Number admitted during year		33,265	29,303	32,394	37,446	40,403
Number at end of year		149,609	156,783	168,784	183,787	202,963
Total payments during year(*b*)	$'000	184,699	226,022	306,478	407,056	511,019
Average weekly pension at end of year(*b*)	$	22.67	26.73	36.28	41.68	45.81

(*a*) Percent of persons of pensionable age (males aged 65 years and over and females aged 60 years and over). (*b*) Includes allowances, supplementary assistance and wives' pensions where applicable.

Sheltered employment allowance and associated payments

Sheltered employment allowance is payable to disabled people who are employed in sheltered workshops and are otherwise qualified to receive an invalid pension or would become so qualified if they ceased to be provided with sheltered employment. The allowance is subject to the same income test as applies to invalid pension and is paid at the same rate. It is payable in the form of a supplement to the sheltered employee's wages. The allowance is not taxable unless the sheltered employee has reached age pension age.

A sheltered employee is entitled to the same additional payments as an invalid pensioner except that no supplementary assistance is payable. Instead, all people in receipt of sheltered employment allowance receive an incentive allowance of $5 a week. There is no income test on the allowance, but a person precluded by his or her income from receiving sheltered employment allowance is not entitled to incentive allowance.

All sheltered workshops are required to pay sheltered employment allowances on behalf of the Department of Social Security. At 30 June 1977, 134 workshops were paying the allowances to 5,713 disabled employees. Expenditure during the year 1976–77 was $13,835,000.

Widows' pensions and associated payments

There are three categories of widow pensioners:

Class '*A*'. A widow who has the custody, care and control of one or more qualifying children under the age of sixteen years or full-time dependent students;

Class '*B*'. A widow who, because she has no qualifying children or students in her custody, care and control, is not eligible for a Class 'A' widow's pension but is either at least 50 years of age or, after having reached the age of 45, has ceased to receive a Class 'A' pension by reason of ceasing to have the custody, care and control of a qualifying child or student; and

Class '*C*'. A widow not eligible for Class 'A' or Class 'B' widow's pension, is under 50 years of age but is in necessitous circumstances following her husband's death (in normal circumstances, the Class 'C' pension is not payable after 26 weeks have elapsed from the death of the husband, but if the widow is pregnant the period is extended until the child's birth, whereupon the widow may then become eligible for a Class 'A' widow's pension).

For classes 'A' and 'B', the term 'widow' includes: a wife who has been deserted by her husband for a period of at least six months; a divorcee; and a woman whose husband has been in prison or in a mental hospital for at least six months. A woman who, although not legally married, has been living with a man for at least three years as his wife on a *bona fide* domestic basis and subsequently loses her partner by reason of death, desertion or his imprisonment or admission to a mental hospital is treated as though she had been legally married to him.

A period of residence in Australia before claiming a pension is not required if a woman and her husband were residing permanently in Australia when she became a widow. In other circumstances, five years continuous residence preceding lodgment of the claim may be required, but this is waived in the case of a woman whose husband has died overseas if she has resided continuously in Australia for ten years at any time and returns to Australia to live.

A widow's pension is not payable to a woman receiving an age or invalid pension, a sheltered employment allowance, or a war widow's pension. A deserted wife or a divorcee who has not taken reasonable action to obtain maintenance from her husband or former husband may be ineligible for a widow's pension.

Current rates of pension. With effect from May 1977, the maximum rate of pension for all classes of widow is $2,449 per annum ($47.10 a week) plus, in the case of widows with children, a mother's allowance of $208 per annum ($4 a week) or $312 per annum ($6 a week) where at least one child is under 6 or is an invalid requiring full-time care, plus $390 per annum ($7.50 a week) for each dependent child who is under 16 years or is a full-time dependent student. Supplementary assistance of up to $260 a year ($5 a week) is also available to widows who pay rent, or for board and lodgings or for lodgings, and who are wholly or substantially dependent on their pension. The amount of this assistance cannot exceed the amount of rent paid.

Income test. Widow's pensions are subject to an income test and are taxable. The income test for widows' pensions also applies to recipients of the supporting parent's benefit described below. The rate of pension payable depends on the claimant's income as assessed. As for age and invalid pensions, some types of income are disregarded for purposes of calculating income as assessed. For Classes 'A' and 'B' widows and supporting mothers, the annual maximum standard rate of pension plus any additional allowances is reduced by half of the amount of any income as assessed in excess of $1,040. There is no specific income test for the Class 'C' pension, which is paid only where it is evident that a widow has insufficient means of support. Supplementary assistance is reduced by the amount by which income as assessed exceeds $52.

It should be noted that a deserted wife ineligible for Class 'A' or Class 'B' widow's pension because six months have not expired from the date of desertion by her husband may be eligible for assistance from the Government of the State in which she lives. The Commonwealth Government subsidises the State Governments for this purpose under the *States Grants (Deserted Wives) Act.* It also assists deserted wives in the Territories during the first six months after desertion.

CLASS A AND B WIDOW PENSIONERS, BY AGE AND MARITAL STATUS: 30 JUNE 1977

Category	*Under 20*	*20–29*	*30–39*	*40–49*	*50–59*	*60 and over*	*Total*	*Per cent*
				('00)				
Class 'A'—								
Widowed	0.4	17.1	53.5	96.1	77.2	4.3	248.7	17.9
Divorced	0.2	38.7	85.1	47.7	13.9	0.2	185.9	13.4
Deserted	1.4	92.4	131.2	69.8	20.2	0.5	315.4	22.7
Other	0.1	2.4	3.0	3.1	1.9	..	10.6	0.8
Total	*2.1*	*150.8*	*272.8*	*216.6*	*113.3*	*5.1*	*760.6*	*54.7*
Class 'B'—								
Widowed	..	..	..	12.0	333.9	123.3	469.2	33.6
Divorced	..	..	..	4.6	71.7	6.4	82.7	5.9
Deserted	..	..	..	5.8	63.8	4.8	74.4	5.3
Other	..	..	..	0.2	5.9	0.9	7.0	0.5
Total	..	..	..	*22.6*	*475.3*	*135.3*	*633.3*	*45.3*
Total Class 'A' and 'B'	**2.1**	**150.8**	**272.8**	**239.2**	**588.6**	**140.4**	**1,393.9**	**100.0**
				(Per cent)				
	0.2	10.8	19.6	17.2	42.2	10.1	100.0	

For the year ended 30 June 1977, 76,462 widow pensioners received additional pension for 154,019 children.

WIDOWS' PENSIONS: SUMMARY

Year	*Number admitted —all classes (a)*	*Pensions current at end of year*				*Average weekly pension at end of year (b)*	*Amount paid in pensions during year (b) (c)*
		Class 'A'	*Class 'B'*	*Class 'C'*	*All classes*		
						$	$'000
1972–73 . . .	28,863	57,872	47,768	77	105,717	28.28	140,505
1973–74 . . .	26,204	64,084	51,137	89	115,310	32.79	180,957
1974–75 . . .	24,636	66,518	54,177	96	120,791	44.89	241,392
1975–76 . . .	27,609	71,009	58,408	74	129,491	49.90	325,260
1976–77 . . .	32,468	76,059	63,329	97	139,485	55.71	370,201

(*a*) Excludes transfers from one class to another. (*b*) Includes supplementary assistance and allowances. (*c*) Includes payments to benevolent homes for maintenance of pensioners.

Supporting parent's benefit

Supporting parent's benefit was introduced in November 1977 to extend to supporting fathers the same benefit as had previously been available to supporting mothers through supporting mother's benefit. The benefit is for unmarried mothers or fathers, parents who are the deserted partner of a de facto relationship, de facto spouses of prisoners or separated spouses. The benefit becomes payable six months after the date of the event giving rise to eligibility (e.g. six months after the date of birth of a child, or six months after the date of separation). A supporting parent is qualified to receive a benefit if he/she is residing in Australia on the date on which he/she lodges his/her claim for the benefit and, if unmarried, the child was born while he/she was residing in Australia; or, in the case of a married person living apart from his/her spouse, he/she was residing in Australia immediately before they commenced to live apart; or, in the case of a deserted partner of a de facto relationship or the de facto spouse of a prisoner, if he/she was residing in Australia immediately before the de facto relationship ceased; or if a person has been continuously resident in Australia for not less than five years immediately preceding the date on which he/she lodged a claim for the benefit. To be eligible for the benefit a person must be supporting an eligible child under the age of 16 years, or an older, dependent, full-time student. The rate of supporting parent's benefit, including guardian's allowance and payments for children, is the same as for the Class 'A' widow's pension. It is also subject to the same income test as the Class 'A' widow's pension and is taxable.

It should be noted that a woman ineligible for supporting parent's benefit because six months have not expired from the date of the event otherwise giving rise to eligibility may be entitled in the meantime to assistance from the Government of the State in which she lives. The Commonwealth Government subsidises the States for this purpose under the *States Grants* (*Deserted Wives*) *Act*. If the woman is living in one of the Territories, the Commonwealth Government may make assistance available in the first six months after desertion.

SUPPORTING MOTHERS, BY AGE AND MARITAL STATUS: 30 JUNE 1977

Marital status	*Under 20*	*20–29*	*30–39*	*40–49*	*50–59*	*60 and over*	*Total*	*Per cent*
				('000)				
Unmarried mother	4.6	14.1	2.6	0.5	0.1	..	21.9	43.2
Deserting wife	0.2	6.6	5.4	2.1	0.5	..	15.0	29.1
Other	0.4	6.5	4.7	2.0	0.5	..	14.1	27.7
Total	**5.2**	**27.2**	**12.7**	**4.6**	**1.1**	..	**51.0**	**100.0**
				(Per cent)				
	10.3	**53.4**	**25.0**	**9.1**	**2.0**	..	**100.0**	

For the year ended 30 June 1977, 50,954 supporting mothers received additional benefit for 86,029 children.

SUPPORTING MOTHER'S BENEFIT: SUMMARY

		1973–74	*1974–75*	*1975–76*	*1976–77*
Number admitted during year		29,904	17,939	20,952	20,528
Beneficiaries current at end of year—					
Unmarried mothers		13,684	17,365	20,086	21,909
Deserting wives		6,358	10,043	13,793	14,952
Separated de facto wives		3,065	4,081	4,893	5,586
Other		3,179	4,526	6,770	8,507
Total		*26,286*	*36,015*	*45,542*	*50,954*
Average weekly benefit at end of year(*a*)	$	38 66	52 68	58 44	65 09
Amount paid in benefits during year(*a*)	$'000	40,586	76,092	127,230	158,483

(*a*) Includes supplementary assistance and allowances

Fringe benefits

The Commonwealth Government makes available to pensioners (and, in certain cases, recipients of supporting parent's benefits) several 'fringe benefits'. In most cases these are subject to a special income test. These benefits include:

a one-third reduction in telephone rental—this is available to the blind without an income test (the cost for concessions during 1976–77 was $11,890,000);
a 50 per cent reduction in fares for Commonwealth Government railway and shipping services;
certain postal concessions;
a 10 per cent discount on book purchases from Australian Government Publishing Service Bookshops (this is available free of income test);
free hearing aids;
the availability without charge of certain pharmaceutical prescriptions;
free optometrical consultations; and
additional nursing home benefits.

State Governments, local government authorities and private organizations also provide certain fringe benefits. The most valuable of these are reductions in local government rates and in public transport charges.

The income test operates on the basis of income as assessed as defined for pension purposes. A standard-rate pensioner whose income as assessed is less than $1,716 qualifies for those fringe benefits subject to the income test. A married pensioner couple qualify if their combined income as assessed is less than $2,990.

Funeral benefits

A benefit of up to $40 is payable to an eligible age, invalid, wife or widow pensioner who is liable for the funeral costs of another such deceased pensioner, a deceased child or a deceased spouse. A benefit of up to $20 is payable to any (other) person liable for the funeral costs of a deceased age or invalid pensioner in respect of whose burial a funeral benefit may be granted. These benefits are subject to the 'fringe benefits' income test, applied in the first case to the person liable for the funeral costs and in both cases to the income of the deceased pensioner or beneficiary (where relevant) prior to his or her death.

FUNERAL BENEFITS GRANTED

	1972–73	*1973–74*	*1974–75*	*1975–76*	*1976–77*
$20 grants in respect of—					
Age or invalid pensioners	26,119	25,279	27,333	24,190	25,436
Others	7	16	18	17	13
Total	*26,126*	*25,295*	*27,351*	*24,207*	*25,449*
$40 grants in respect of—					
Age or invalid pensioners	23,841	24,995	25,879	24,195	24,720
Others	2,836	2,277	2,233	1,898	1,447
Total	*26,677*	*27,272*	*28,102*	*26,093*	*26,167*
Total grants	**52,803**	**52,567**	**55,453**	**50,300**	**51,616**

Total cost of funeral benefits granted during 1976–77 was $1,528,000.

Portability of social service payment

Age, invalid and widows' pensions and supporting parent's benefits continue in force for recipients who have left Australia unless they left before 8 May 1973 or their pension or benefit is subject to the provisions of either of the reciprocal agreements with New Zealand or the United Kingdom. In certain cases of hardship, the pension or benefit may continue for people who left before 8 May 1973.

Maternity allowances

A maternity allowance is payable to a woman who gives birth to a child if she resides, or intends to reside, permanently in Australia and gives birth to the child in Australia, and to a woman who gives birth to a child while travelling to Australia if she intends to reside permanently in Australia and provided she receives no benefit similar to a maternity allowance from the country from which she came. A woman who gives birth to a child during a temporary absence from Australia may also be eligible. An alien mother may receive the allowance if she or her husband resided in Australia for at least twelve months immediately prior to the birth of the child, or if she is likely to remain in Australia permanently. Payment may be made in respect of the birth of a still-born child, or a child who lives for less than twelve hours, if at least five and a half months have elapsed from the date of conception.

Rates of allowance. The allowance is $30 if the mother has no other children under sixteen, $32 if she has one or two other children under sixteen, and $35 if she has three or more other children under sixteen. In the case of multiple births the allowance is increased by $10 for each additional child born. An advance payment of $20 may be made four weeks before the expected date of birth. The balance is payable immediately after the birth.

MATERNITY ALLOWANCES: CLAIMS PAID

		1972-73	*1973-74*	*1974-75*	*1975-76*	*1976-77*
Claims paid during year—						
Single births—						
No other children		99,125	96,047	94,380	88,728	85,592
1 or 2 other children		120,027	118,641	119,365	116,034	114,127
3 or more other children		30,188	28,687	22,386	19,742	18,393
Total		*249,340*	*243,375*	*236,131*	*224,504*	*218,112*
Multiple births		2,544	2,527	2,407	2,337	2,208
Total		**251,884**	**245,902**	**238,538**	**226,841**	**220,320**
Amount paid during year	$'000	7,970	7,782	7,506	7,211	6,923

Family allowances

An approved institution of which children are inmates or a person who is resident in Australia and has the custody, care, and control of one or more children under the age of sixteen years or of a full-time student sixteen or more but under twenty-five years, is qualified to receive a family allowance in respect of each such child or student. Full-time students are those receiving full-time education at a school, college or university and who are not in employment or engaged in work on their own account. There are provisions to meet cases of families divided because of divorce, separation, unemployment or death of a parent. There is no income test.

Twelve months residence in Australia is required if the claimant and the child were not born here, but this requirement is waived if the Department of Social Security is satisfied that they are likely to remain in Australia permanently. Where the child's father is not a British subject, family allowance is payable if the child was born in Australia, if the mother is a British subject, or if the Department is satisfied that the child is likely to remain permanently in Australia. Under certain conditions, family allowance may be paid to Australians who are temporarily absent overseas.

Rates of allowance. Since June 1976 the weekly rates have been: $3.50 for the first or only child; $5.00 for the second; $6.00 for the third; $6.00 for the fourth; and $7.00 for each subsequent child. The rate payable for each child or student in an approved institution is $5.00 a week.

The following table shows, as at 30 June 1977, the number of families and the number of children under sixteen years and students aged 16 to under 25 years in respect of whom family allowance is paid, in family groups classified according to the number of children or students in the family group. The families included in the table are not necessarily made up entirely of the children of one marriage, but may include step-children, foster children, adopted children, and any other children in the custody, care and control of the claimant.

FAMILY ALLOWANCES: NUMBER OF CHILDREN AND STUDENTS IN FAMILIES 30 JUNE 1977

Number of children and students in family group	*Families*	*Children and students*
1	682,658	682,658
2	787,775	1,575,550
3	385,438	1,156,314
4	136,517	546,068
5	39,250	196,250
6	13,164	78,984
7	4,364	30,548
8	1,642	13,136
9	567	5,103
10	199	1,990
11	60	660
12	27	324
13	7	91
14	2	28
15 or more	3	54
Total	**2,051,673**	**4,287,758**

FAMILY ALLOWANCES: SUMMARY

		1972–73	*1973–74*	*1974–75*	*1975–76*	*1976–77*
Children and students at end of year in—						
Families		4,218,435	4,240,211	4,264,649	4,274,072	4,287,758
Approved institutions		20,447	20,528	18,867	18,618	14,586
Total		*4,238,882*	*4,260,739*	*4,283,516*	*4,292,690*	*4,302,344*
Families at end of year		(*a*)	(*a*)	(*a*)	(*a*)	2,051,673
Approved institutions at end of year		505	511	513	527	504
Amount paid during year	$'000	253,889	225,392	224,850	265,463	1,023,303

(*a*) Prior to the introduction of the revised family allowances system in June 1976, statistics of child and student endowments were recorded separately. Consequently the combined number of families is not available.

Double orphan's pension

This pension is payable to the guardian of a child whose parents or adoptive parents are both dead, or one of whom is dead and the other missing. It is also payable in cases where one parent is dead and the other is a long-term inmate of a prison or mental hospital. Payment is made for orphans who are under 16 years or who are full-time students under 25. There is no income test. The pension is payable at the rate of $11 a week for each eligible child. A double orphan's pension is not payable if the child attracts a war orphan's pension under the Repatriation Act. The number of double orphan's pensions at 30 June 1977 was 4,473. The expenditure on these pensions during the year 1976–77 was $2,402,000.

Handicapped child's allowance

Parents or guardians of a child under 16 years who is severely handicapped mentally and/or physically, is living in the family home, and needs constant care and attention, are entitled to a handicapped child's allowance of $15 a week. The allowance is not subject to an income test, but a residence qualification similar to that for family allowance applies. The allowance is also available to persons on low income who are caring for a substantially handicapped child and are suffering severe financial hardship as a result of expenditure associated with the child's disability. The number of handicapped child's allowances being paid at 30 June 1977 was 21,936. The total amount paid through these allowances during the year 1976–77 was $14,096,000.

Unemployment and sickness benefits and associated payments

Unemployment and sickness benefits are paid to men over sixteen and under sixty-five years of age, and to women over sixteen and under sixty years of age, who are unemployed or temporarily incapacitated for work and are thereby suffering loss of income. They must have been living in Australia during the preceding twelve months or be likely to remain permanently in Australia. Both benefits are subject to an income test. A person cannot receive both benefits simultaneously, nor can a person receive either benefit at the same time as an invalid, widow's or repatriation service pension.

For unemployment benefit purposes, a person must establish that he is unemployed, that his unemployment is not due to his being a direct participant in a strike, that he is capable and willing to undertake suitable work, and that he has taken reasonable steps to obtain such work. Registration for employment with the District Employment Office of the Commonwealth Employment Service is necessary. For sickness benefit purposes, a person must establish that he is temporarily incapacitated for work because of sickness or accident and that he has thereby suffered a loss of salary, wages or other income.

Rates of Benefit. The maximum weekly rates of unemployment and sickness benefit payable, and the permissible income in respect of benefit periods which commenced after the introduction of increased benefits in May 1977, are as follows:—

	Maximum weekly rate	*Permissible weekly income*
	$	$
Married man (includes additional benefit for wife)	78.50	6.00
Single person aged 21 years or more . . .	47.10	6.00
Single person aged 18 to 20 years. . . .	47.10	3.00
Single person aged 16 or 17 years . . .	36.00	3.00

These amounts are increased by $7.50 for each child under 16 years or full-time student in the care of the beneficiary.

After the benefit has been paid for six consecutive weeks a sickness beneficiary who is paying rent or is paying for lodgings may be entitled to supplementary allowance of up to $5.00 a week. The amount of any such allowance cannot exceed the amount of rent paid.

The weekly rate of benefit is reduced by the amount by which a beneficiary's other income exceeds the amount of permissible income. The income of the spouse is also taken into account unless the claimant and his spouse are permanently separated. For sickness benefit purposes the income from an approved friendly society or other similar approved body in respect of the incapacity for which sickness benefit is payable is disregarded. 'Income' does not include family allowance or other payments for children, health benefits and payments from Medibank or registered benefit organisations, or an amount paid in reimbursement of medical, dental or similar expenses. The supplementary allowance is reduced by the amount by which a beneficiary's other income exceeds $1.00 a week in the case of a single person and by half of the excess of the beneficiary's income over $2.00 a week in the case of a married person.

The amount of compensation, damages or similar payment, or war pension, if paid in respect of the same incapacity as that for which sickness benefit is claimed, is deducted from the sickness benefit if it is paid in respect of the same period. If it is not paid in respect of the same incapacity, compensation in respect of the same period is regarded as income and war pension is ignored.

There is a waiting period of seven days during which unemployment or sickness benefit is not usually payable, but this waiting period is not required to be served more than once in any period of thirteen weeks.

Special benefit

A special benefit may be granted to a person not qualified for unemployment or sickness benefit who is not receiving an age, invalid or widow's pension, a service pension or a tuberculosis allowance and who, because of age, physical or mental disability or domestic circumstances, or any other reason, is unable to earn a sufficient livelihood for himself and his dependants. Recipients of special benefits include, among others, unmarried women for a period before and after the birth of a child, persons caring for invalid parents or sick relatives children, persons ineligible for a pension because of lack of residence qualifications and persons remanded in custody pending court proceedings.

Special benefits are also paid to immigrants who are in Commonwealth Government centres or hostels awaiting their first placement in employment in Australia. During this time they receive a short instruction in English and in Australian conditions to facilitate their assimilation into the community and employment.

No income test or residence requirement is laid down, but there is an overriding requirement that a person must be suffering hardship to be granted a special benefit.

The maximum rate of special benefit is the same as for unemployment benefit.

UNEMPLOYMENT, SICKNESS, AND SPECIAL BENEFITS: SUMMARY

Year	*Number admitted to benefit during year*			*Average number of persons on benefit at end of each week*			*Amount paid in benefits*		
	Unemployment	*Sickness*	*Special (a)*	*Unemployment*	*Sickness*	*Special (a)*	*Unemployment*	*Sickness*	*Special (a)*
							($'000)	($'000)	($'000)
1972–73 . .	280,573	101,249	16,267	39,580	16,163	4,090	46,553	26,610	4,368
1973–74 . .	229,231	118,190	16,698	34,148	20,655	4,480	58,246	41,407	6,983
1974–75 . .	701,302	131,377	19,633	116,603	24,346	5,331	251,740	62,833	10,992
1975–76 . .	891,904	153,869	36,805	191,723	28,081	6,821	513,923	92,215	17,198
1976–77 . .	803,461	148,508	41,502	215,871	32,385	8,181	618,074	105,408	21,913

(*a*) Includes immigrants in Government centres or hostels awaiting their first placement in employment in Australia.

Appeals Tribunals

Appeals Tribunals operate in all States, the Australian Capital Territory and the Northern Territory. The purpose of the Tribunals is to provide an independent avenue of redress for people who feel aggrieved by decisions of the Department of Social Security, which administers payments made under the *Social Services Act*. Each Tribunal consists of two independent members, usually a lawyer and a welfare worker, and a seconded officer from the Department of Social Security. The Tribunals operate as informally as possible. Appeals may be lodged by personal attendance, telephone, letter or on a special form.

The Tribunals do not have the power themselves to overturn decisions by the Department of Social Security, but they make recommendations to the Department.

Reciprocal social services agreements with other countries

New Zealand. An agreement between the Governments of Australia and New Zealand for reciprocity in social services came into operation on 3 September 1943 and was amended from 1 July 1949. The reciprocal arrangements cover age and invalid pensions, widow's pensions, family allowance and unemployment and sickness benefits, and apply to both permanent and temporary changes of residence. Residence in one country may be treated as residence in the other country in relation to entitlement to benefits in which a residential qualification applies. Persons from one country taking up a permanent residence in the other country become eligible for any of the specified benefits of the new country under the same conditions (with one or two exceptions) as apply to citizens of that country. Persons in receipt of any of the specified benefits in one country may continue to receive those benefits while temporarily absent in the other country.

United Kingdom. Under a reciprocal agreement on social services between the United Kingdom and Australia, residence in one country may be treated as residence in the other country as the basis for entitlement to benefits in which a residential qualification applies. Australians going to the United Kingdom for permanent residence are treated in the United Kingdom as if they have been insured under the National Insurance Scheme while in Australia, so that they can qualify for various National Insurance benefits. There is also provision for the safeguard of social service rights for persons going from one country to the other for temporary residence.

Commonwealth Rehabilitation Service

The Commonwealth Rehabilitation Service assists people who are unable to work because of long-term disability or who have had to give up their employment because of sickness or injury. It aims to help disabled people to reach their maximum physical, mental and social usefulness and to assist them to live as independently as possible. Towards this aim, it provides co-ordinated programs of treatment and training to meet the special needs of each disabled person. Responsibility for the delivery of these services rests with the twelve residential and day-attendance centres and the thirteen regional rehabilitation units which are currently operated by the service.

Rehabilitation may be provided free to people receiving, or eligible to receive, invalid or widow's pension, or unemployment, sickness or special benefit; to people receiving tuberculosis allowance; to people aged 14 or 15 years who, without treatment or training, would be likely to qualify for invalid pension at age 16; to national servicemen and members of the permanent forces who are disabled at time of discharge but are ineligible for rehabilitation assistance from the Department of Veterans' Affairs; and to people who become disabled while working for the Commonwealth Government and are covered by the *Compensation (Commonwealth Employees) Act*, 1971. People from these groups may be selected for rehabilitation if their disabilities are a substantial handicap for employment but can be overcome by treatment or training, and if there are reasonable prospects that they will be able to take up employment following rehabilitation. In addition, rehabilitation may be provided without cost not only to those who have reasonable prospects of undertaking employment, but also to all those within the broad working age group who, in spite of substantial residual handicaps, have reasonable prospects, with rehabilitation assistance, of resuming a former role as housewife/mother or increasing their capacity to lead an independent or semi-independent life at home.

For those eligible, payment of pension or benefit continues during treatment. When vocational training begins, pension or benefit is suspended and replaced by training allowance. This allowance is determined by the Director-General, Department of Social Security, having regard to the adult male average award wage. Living-away-from-home allowance is paid where necessary. Fares and living expenses (including those of an attendant where required) in connection with treatment, training or attendance for an interview or for medical examination may also be paid. Necessary artificial replacements, surgical aids and appliances may be provided free of charge to a person receiving treatment and training or who needs them to assist him to engage in a suitable vocation after the discontinuance of his treatment and training or who needs them otherwise to assist in his rehabilitation.

Treatment, training and assessment programs are undertaken at rehabilitation centres where occupational therapists, vocational counsellors and qualified trade and commerce teachers determine the skills which make best use of ability and which are best adapted to the person's needs. In addition to the services provided at each centre, technical schools, business colleges, universities, training on-the-job in commerce or industry and correspondence courses are all used for training purposes. Essential text books and equipment may be provided during treatment or training; alternatively, these may be supplied after treatment or training is discontinued to enable a rehabilitee to engage in employment.

Throughout the process of rehabilitation, counsellors maintain contact with the disabled person and provide guidance and encouragement where necessary. The Commonwealth Rehabilitation Service currently employs 80 such counsellors who play a significant role in the co-ordination of the non-medical aspects of rehabilitation.

Between its inception in 1948 and 30 June 1977, the Rehabilitation Service has assisted some 49,586 severely handicapped people.

Compassionate allowances

These allowances are paid by the Commonwealth Government on a discretionary basis to certain people who are unable to qualify for pensions or other benefits under provisions of the *Social Services Act*. Expenditure on compassionate allowances and payments of a similar nature, excluding war relief measures, during 1976–77 was $17,500.

Commonwealth Government assistance to welfare organisations

The *Aged or Disabled Persons Homes Act* 1954 is designed to encourage the provision of homes in which aged persons may reside in conditions approaching normal domestic life.

To be eligible for assistance under the Act an organisation must be:

(*a*) carried on otherwise than for the purposes of profit or gain to the individual members; and
(*b*) a religious organisation, an organisation of which the principal objects or purposes are charitable or benevolent, an organisation of former members of the defence forces established in every State or a State branch of such an organisation, an organisation approved by the Governor-General for the purposes of the Act, or a local governing body.

An organisation conducted or controlled by, or by persons appointed by, the Commonwealth or any State Government is not eligible for assistance under the Act.

The Director-General of the Department of Social Security or his delegate may make a grant of money to an organisation as assistance towards meeting the cost of the construction or purchase of a home, including land, to be used permanently for the accommodation of aged persons. The grant is made on a basis of $2 for each $1 raised by the organisation but is limited to $11,130 for a single unit of accommodation and $12,910 for a double unit plus up to $1,920 per unit for land. Money which the organisation received from a governmental body other than a local governing body does not attract subsidy.

Before a grant is made the Director-General must be satisfied that the sum of the money expended and the money at present available for expenditure by the organisation towards the capital cost of the home, together with the amount of the grant, will be not less than the capital cost of the home.

The following table gives information regarding grants approved for each of the past five years. The amounts granted in each year include new grants approved in that year together with adjustments made during the year in respect of grants originally approved in earlier years.

AGED OR DISABLED PERSONS HOMES: GRANTS AND AMOUNTS APPROVED AND BEDS PROVIDED

		1972–73	*1973–74*	*1974–75*	*1975–76*	*1976–77*
Grants approved		228	171	228	33	71
Amount approved	$'000	19,741	18,999	37,299	10,531	21,381
Beds provided—						
Self-contained		2,008	1,899	2,243	385	233
Hostel		827	669	675	181	769
Nursing		1,154	849	992	52	1,015
Total		*3,989*	*3,417*	*3,910*	*618*	*2,017*

Since the commencement of the Act in December 1954, 3,242 grants amounting to $256,713,062 have been approved, and accommodation has been provided for 58,769 aged and disabled persons.

The *Aged or Disabled Persons Homes Act* also provides a *personal care subsidy* of $15 a week paid to eligible organisations for persons of eighty years of age or over and other persons requiring and receiving approved personal care while living in hostel type accommodation provided by organisations eligible under the *Aged or Disabled Persons Homes Act*. The following table gives details of the premises approved, payments made and number of residents aged eighty years or over residing in the approved premises.

AGED OR DISABLED PERSONS HOMES ACT: PERSONAL CARE SUBSIDIES, 30 JUNE 1977

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Approved premises	No.	159	150	95	71	61	19	2	2	559
Residents qualifying	No.	3,887	4,128	3,089	2,039	1,801	466	8	28	15,446
Percentage of qualifying residents to total residents		47.87	68.42	63.42	66.00	77.83	87.10	40.00	52.83	62.93
Subsidies paid, 1976–77	$'000	3,129	2,900	1,782	1,474	1,402	358	7	21	11,073

The *Aged Persons Hostels Act* 1972 was introduced to stimulate the provision of more hostel-type accommodation for needy aged people.

Under the scheme the Commonwealth Government will meet the full cost of providing new hostel accommodation for two aged people for every one at present in an eligible unsubsidised home, or for one additional person for every two in a home previously subsidised on a dollar-for-dollar basis between 1954 and 1957. The organisation will not be required to make any contribution from its own resources unless the capital cost exceeds $16,700 per person accommodated, or the bed capacity of the new home exceeds the number of 'free' beds to which the organisation is entitled. A further grant of up to $250 for each person accommodated is available for furnishing the new hostel plus an additional $2,400 per person for land and/or site development where applicable.

The scheme was limited to a period of three years expiring on 27 September 1975 to encourage organisations to move quickly in taking advantage of the benefits the scheme offered.

This Act had the effect of placing the old established organisations which conducted homes prior to the introduction of the $2 for $1 scheme in the same relative position as that achieved by newer organisations which had received a $2 for $1 subsidy, i.e. where two-thirds of their accommodation was provided by the Government.

Admission to these homes is based strictly on need with regard to the applicant's health, age, accommodation and financial situation. Since the commencement of the Act, 209 grants have been approved, totalling $100,079,036 as at 30 June 1977.

Although the Act was terminated for the purposes of approving new projects, amending legislation has preserved the rights of organisations whose projects have been accepted under the Act, but which for one reason or another did not proceed.

AGED PERSONS HOSTELS ACT: SUMMARY OF GRANTS

	1972–73	*1973–74*	*1974–75*	*1975–76*	*1976–77*
Number of grants during year	12	55	148	12	51
Beds provided—					
Hostel beds	349	2,111	5,385	393	1,574
Staff beds	7	64	174	17	56
Total	**356**	**2,175**	**5,559**	**410**	**1,630**
			($'000)		
Amount paid during year—					
Capital grants	2,766	16,500	57,385	11,527	26,562
Furnishings grants	62	535	1,357	104	396
Total	**2,827**	**17,035**	**58,742**	**11,631**	**26,957**

The *Handicapped Persons Assistance Act* 1974 replaced both the *Sheltered Employment (Assistance) Act* 1967 and the *Handicapped Children (Assistance) Act* 1970. Under this legislation, eligible organisations may apply for subsidies towards the cost of providing capital projects, maintenance and equipment. Grants are also available in respect of rental and certain salary payments.

Grants on purchases of buildings, equipment etc. take the form of a $4 subsidy for each $1 raised by an eligible organisation from non-government sources. Rent is subsidised at a rate equal to 80 per cent of the approved rental paid subject to certain conditions. Salary costs may be subsidised to an amount equal to 100 per cent of salary paid to staff employed in new ventures, but this is reduced to 50 per cent after the premises have been providing the service for 2 years or more.

As well as assisting organisations with establishment and running costs, the legislation also provides financial encouragement to sheltered workshop administrators to provide the type of training for the handicapped which will prepare them, where possible, for open employment. A *training fee* of $500 is paid to organisations providing approved sheltered employment for each handicapped employee who, having received at least 6 months training in the workshop, graduates to open employment and remains there for at least 12 months.

Introduction of the *Handicapped Persons Assistance Act* in December 1974 also saw the transfer of the administration of Handicapped Children's Benefit from the Commonwealth Department of Health to the Department of Social Security. Where an organisation provides approved residential accommodation for mentally or physically handicapped children under 16 years, it becomes entitled to receive a Commonwealth benefit of $5.00 per day in respect of each resident child.

HANDICAPPED PERSONS ASSISTANCE ACT: SUMMARY OF GRANTS

	1972–73(a)	*1973–74(a)*	*1974–75(a)*	*1975–76*	*1976–77*
Approved premises(*b*)	59	59	559	643	952
Number of grants during year—					
Capital(*c*)	1,138	1,420	1,789	2,451	2,021
Other(*d*)	207	239	1,991	2,209	719
Total	**1,345**	**1,659**	**3,780**	**4,660**	**2,740**
			($'000)		
Amount approved during year—					
Capital grants(*c*)	5,854	9,061	7,330	9,320	14,774
Other grants(*d*)	265	259	4,132	5,897	2,392
Total	**6,119**	**9,320**	**11,462**	**15,217**	**17,166**
Total expenditure during year	**5,896**	**7,588**	**14,934**	**29,991**	**29,984**

(*a*) Includes Sheltered Employment (Assistance) Act and Handicapped Children (Assistance) Act both repealed December 1974. (*b*) Total approved sheltered workshops, activity therapy centres, training centres and premises providing residential accommodation as at 30 June. (*c*) Residential and non-residential buildings, equipment and maintenance. (*d*) Training fee, salary subsidy and rent.

HANDICAPPED CHILDREN'S BENEFIT

	1972–73	*1973–74*	*1974–75*	*1975–76*	*1976–77*
Approved handicapped persons homes(*a*)	53	55	69	86	92
Handicapped children accommodated(*a*)	1,185	1,560	1,360	1,392	1,497
Days of benefit paid during year	286,060	273,052	263,141	335,863	380,249
Total amount paid during year $	429,090	582,137	890,823	1,191,075	1,589,264

(*a*) As at 30 June.

The *Homeless Persons Assistance Act* was introduced in December 1974 to help non-profit organisations and local governing bodies which provide accommodation, food and social welfare services for homeless men and women.

The Act enables grants to be made to eligible organisations to meet the cost of purchasing, constructing, altering or renting buildings to be used as homeless persons' assistance centres, as well as to meet the cost of purchasing furniture, furnishings and equipment for such centres. Grants also meet half the salary of a social welfare worker employed at a centre. The amount of grants made for these purposes during 1976–77 was $1,486,654.

A subsidy is also available to help meet the cost of providing food and accommodation for homeless persons at an approved centre, or of meals provided at such centres for non-resident homeless persons. The rate of the food and accommodation subsidy has been prescribed at 75 cents per day and the rate of meals subsidy as 25 cents per meal. During 1976–77 the amount of this subsidy totalled $756,240.

The *Delivered Meals Subsidy Act* 1970 helps organisations to establish, maintain, expand and improve 'meals on wheels' services. The subsidy is at the rate of $2.50 for every ten meals provided by approved organisations. At 30 June 1977, 560 organisations had received a total subsidy of $1,911,173 under the Act. During 1976–77 the amount of this subsidy totalled $111,920. Organisations eligible for grants under the Act are the same as those specified under the *Aged or Disabled Persons Homes Act*.

Commonwealth Government assistance to States

The *States Grants* (*Deserted Wives*) *Act* 1968 provides for assistance to be given by the Commonwealth Government to the States in respect of aid for needy mothers with children where there is no breadwinner and the mothers are not eligible for benefits under the *Social Services Act*. Broadly, these include deserted wives during the first six months of desertion, wives during the first six months of the husband's imprisonment, deserted de facto wives, de facto wives of prisoners, other separated wives and unmarried mothers.

The type of assistance attracting a grant may be provided in the form of cash, food or clothing. The grant is made by the Commonwealth Government to the States on the basis of half the cost of the approved assistance paid to the mother, or half the amount of Class 'A' widow's pension or supporting parent's benefit which would have been payable had she been qualified to receive it, whichever is the lesser.

All States are now receiving assistance under the scheme. In 1976–77 payments by the Commonwealth Government amounted to $13,346,614.

The *States Grants* (*Home Care*) *Act* 1969 provides that the Commonwealth Government will share with participating States on a $2 for $1 basis the cost of developing approved housekeeping or other domestic assistance provided wholly or mainly for aged persons in their homes. The Commonwealth Government will also share on a $2 for $1 basis with participating States up to a maximum of one-third of the capital cost of approved senior citizens' centres as well as meeting on a $2 for $1 basis with the States the cost of a salary of a welfare officer employed by such a centre. All States participate in this scheme. The Commonwealth Government share was increased to two-thirds of State expenditure from 1 July 1973.

PAYMENTS TO STATES FOR HOME CARE, SENIOR CITIZENS' CENTRES, AND WELFARE OFFICERS, 1976-77

($)

State	*Home Care Services*	*Senior Citizens' Centres*	*Welfare Officers*	*Total*
New South Wales .	1,566,667	890,800	252,978	2,710,445
Victoria . . .	2,017,951	1,571,007	292,701	3,881,659
Queensland . .	1,990,047	916,316	37,487	2,943,850
South Australia . .	904,095	212,316	30,715	1,147,126
Western Australia .	57,333	406,400	56,199	519,932
Tasmania . . .	354,984	..	..	354,984
Total . .	**6,891,077**	**3,996,839**	**670,080**	**11,557,996**

SOCIAL WELFARE

The Role of the Department of Social Security

The Department of Social Security provides a professional social work service, a welfare service to migrants including a telephone interpreter service (*see* also Migrant Welfare, Settlement and Integration in Chapter 6), and after-care for refugees. It administers grants to the following bodies: Australian Council of Social Service, Australian Council on the Ageing, Australian Council for Rehabilitation of Disabled, Good Neighbour Councils, voluntary welfare agencies to employ social workers for work amongst migrant communities (Grant-in-Aid Scheme), Australian Council of Trade Unions to develop a research unit, Australian Branch of International Social Service, and locally-based community welfare agencies in serious financial difficulty (emergency funding only).

To assist in its role of advising the Government on welfare policy, the Department of Social Security initiates, develops and evaluates experimental projects in social welfare and undertakes research studies. The experimental projects currently being administered and evaluated by the Department are the Community Information Centres and Welfare Rights Program.

A pilot project of twelve Community Information Centres is being developed and evaluated to determine ways of establishing an effective system of information and referral for all members of the community.

The Welfare Rights Program consists of grants to 10 self-help organisations to enable them to employ a Welfare Rights Officer who aims to improve the access of disadvantaged persons to welfare services and entitlements.

With the abolition of the Social Welfare Commission, the Department of Social Security assumed responsibility for that Commission's Research Program which included approximately 50 projects and fellowships at a cost of around $0.5 million. Those still current include studies of Voluntary Welfare Agencies, Work and Social Adjustment, and the Organisation of Social Welfare Education in Australia. Completed research includes "Indicators of Community Well-Being" by Vinson and Homel. Other projects for which the Department has assumed responsibility are a Social Welfare Research Bulletin, the maintenance of a Register of Research, and the provision of research and secretarial support to the Family Services Committee. This committee, which consists of Commonwealth and State Government Authorities and a representative of the voluntary sector, was established in 1975 to report on the current and future service needs of families in Australia.

The role of voluntary agencies

Voluntary agencies have played an important role in the provision of social welfare services in Australia since the earliest days of settlement. The oldest voluntary organisation in Australia is the Benevolent Society of New South Wales, founded in 1818 'to relieve the poor, the distressed, the aged and the infirm'. During the 19th century, voluntary agencies were active in all States providing: homes for orphan and abandoned children; industrial schools for older boys and girls often rescued from total destitution in the streets; relief in food and clothing for widows, old people and families of the unemployed; hospitals for the sick poor; and institutions for the aged and invalid.

Although in this century the Commonwealth and State Governments have taken over many tasks formerly carried out by voluntary agencies, this has not led to any diminution in voluntary activity. The voluntary sector is probably more active today than it has ever been, not only in carrying out its traditional role, but also in opening up new fields of activity.

In caring for the aged, voluntary agencies are co-operating with the Government in providing aged persons homes, retirement villages, hostels for the frail aged and nursing homes for the sick aged. In addition to the provision of residential care, voluntary agencies are increasingly offering services to the aged in their own homes to enable them to be independent as long as possible. Services include 'Meals on Wheels', home help, leisure programs in senior citizens centres, friendly visiting to the lonely aged, sheltered workshops to provide meaningful activity, and many similar services designed to enhance the well-being of the aged.

The same pattern of activity is seen in services for the mentally and physically handicapped. Voluntary agencies provide day and residential schools for handicapped children, sheltered workshops for those able to undertake some employment and hostels for the handicapped in both sheltered and open employment. Many organisations provide home visiting services and occupational therapy for the home-bound, special training centres for various forms of rehabilitation, and recreational programs for those unable to participate in general community activities. The handicapped field is also noted for its activities in bringing together self-help groups of the handicapped and their families to promote the well being of the handicapped and to encourage study and research into both prevention and rehabilitation.

Besides the various forms of health services described above, many major hospitals are provided by the voluntary sector. Of the approved hospitals in Australia, almost 15 per cent are run by voluntary organisations. Such hospitals cover a wide range of needs and, in addition, provide nursing training which may ultimately be of service to the full range of hospitals and nursing homes.

Family and child welfare has long been an important area for voluntary activity. Children's homes provide for children deprived of normal home life because of serious problems within the family, in a wide variety of units ranging from the small family group home in an ordinary house in the suburbs to the large unit of cottage homes grouped together. As with other services, recent years have shown a marked emphasis on preventive services through family welfare agencies and a greater use of substitute families in adoption and foster care programs.

Within the modern family welfare agency, assistance is given not only with money and food as in the last century, but also with marriage guidance, parental counselling and home-maker services, all designed to keep the family together as a unit. Other voluntary agencies run services for the single mother or provide day-care services to assist working mothers, in particular the one parent family or the family under special strain.

The well-being of Australian youth is also a matter of concern to the voluntary sector which runs youth activities of many varieties, offers adolescent counselling services and is showing a growing concern for those suffering serious emotional disturbance and those becoming addicted to drugs.

As well as these general community services, special services for Aboriginals have been a feature of voluntary activity. Formerly, these were mainly concerned with the mission area, but of late many agencies have been formed, often run wholly by Aboriginals, to assist urban dwellers. Legal aid services, "head start" programs, nutrition programs and many others are now being made available through voluntary effort.

The care of immigrants is also a significant activity and, again, much of this work is now undertaken by settled immigrants in conjunction with longer-established Australians.

Prisoners and ex-prisoners also receive their share of attention. Organisations exist to visit prisoners and assist their families. These will also assist prisoners on discharge to re-settle in the community, either at home, in lodgings or in hostels provided by the agency. Other agencies concern themselves with alcoholics, homeless men and women and others who are temporarily destitute.

This list of activities by no means covers all the work done by the voluntary sector. New and experimental services such as Lifeline and Samaritans, drug contact centres, drop-in coffee houses, street workers for alienated youth and many others are evidence of the continuing ability of the voluntary sector of social welfare to develop and meet new social needs.

Another area of developing interest involves the participation of various kinds of citizen groups in social welfare services. These include Community Information Centres and Community Aid services largely manned by volunteers; groups of clients of social welfare services who provide both a service for their members and liaise with Departmental services on questions of the way service is offered to people in need; and Resident Action groups who are concerned to participate in any replanning of their neighbourhood. This area of citizen involvement can be expected to become more and more important over the next few years.

Studies of social needs and of the quality and the adequacy of present services are a continuing concern of the voluntary sector which, through the work of Councils of Social Service at the State, Territory and national levels, promotes the well-being of the deprived and disadvantaged sections of the community and the general social development of Australia.

Welfare Services in the Territories

Provision of social security and welfare services in the Northern Territory and the Australian Capital Territory is the responsibility of the Commonwealth Government. In so far as welfare items can be identified for territorial accounting purposes, the following table shows the cost of providing these services.

AUSTRALIAN GOVERNMENT EXPENDITURE ON SOCIAL SECURITY AND WELFARE(*a*)
NORTHERN TERRITORY AND AUSTRALIAN CAPITAL TERRITORY
($'000)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Northern Territory—					
Current outlay	8,479	10,569	11,463	20,228	19,492
Gross capital formation(*b*)	348	622	220	500	473
Total	**8,827**	**11,191**	**11,683**	**20,728**	**19,965**
Australian Capital Territory—					
Current outlay	635	757	874	1,376	2,101
Capital outlay—					
Gross capital formation(*b*)	..	..	..	501	358
Total	**635**	**757**	**874**	**1,877**	**2,459**

(*a*) Includes expenditure on aboriginal affairs. (*b*) Expenditure on fixed assets and increase in stocks.

Aboriginal welfare

A referendum in May 1967 led to the repeal of Section 127 of the Constitution which provided that, in reckoning the numbers for census purposes, Aboriginals should not be counted, and to the deletion of the words 'other than the Aboriginal race in any State' from Section 51 (xxvi) which relates to the power of the Commonwealth Parliament to make laws in respect to people of any race. The Commonwealth Government's aim is to help Aboriginals become self-managing and self-sufficient while, at the same time, to preserve and to develop their own distinctive culture. It now shares with the States power to legislate in respect of Aboriginal people. The Commonwealth Government has assumed full responsibility for policy, planning and co-ordination in respect of Aboriginal affairs at the national level, and has established a Department of Aboriginal Affairs with regional offices in all States and the Northern Territory. In November 1973, an election was held by Aboriginals throughout Australia to establish the first National Aboriginal Consultative Committee, a group of forty-one Aboriginals and Torres Strait Islanders elected to advise the Government on Aboriginal needs. At the request of the Committee, the second election, which was scheduled for November 1975, was deferred for nine months. Subsequently, the Government established an independent inquiry into the role of the Committee. As a result of the findings of this Committee of Inquiry, a National Aboriginal Conference (NAC) has been established composed of thirty-five members who meet annually at national level. Members also meet at least twice each year in their State or Territory as State or Territory Branches of the NAC, and choose their representatives on the ten-member NAC Executive.

The role of the NAC is to provide a forum in which Aboriginal views can be expressed at State and national level and, in particular, to express Aboriginal views on the long term goals and objectives which the Government should pursue, the programs it should adopt in Aboriginal affairs, and on the need for new programs in Aboriginal affairs. The NAC also participates, through its entitlement to choose five of the ten members, in the work of a new body, the Council for Aboriginal Development. This Council is the body from which the Government seeks formal advice.

VETERANS' AFFAIRS

The Repatriation Commission, established under the *Repatriation Act* 1920, consists of three fulltime members. It is responsible for the administration of the *Repatriation Act* and associated legislation, all matters of policy, and the general administration and overall supervision of the provision of benefits under the legislation. The Chairman of the Commission is also the Secretary of the Department of Veterans' Affairs (formerly the Department of Repatriation), which provides the administrative machinery through which the Commission operates. The central office is in Canberra and there is a branch office, under the control of a Deputy Commissioner, in each State.

The principal functions of the Department are: the payment of disability and dependants' pensions (previously called war pensions) and service pensions and allowances to eligible veterans and their dependants; the provision of medical treatment for veterans for injuries and illnesses caused or aggravated by their service; the provision of medical treatment in certain circumstances for veterans who are suffering from injuries and illnesses not caused or aggravated by service; the provision of medical treatment for widows and dependants of deceased veterans whose deaths are service-related; and a wide range of other benefits for eligible persons. Since 5 October 1976, the *Defence Service Homes Act* 1918 has been administered by the Defence Service Homes Corporation (previously the Australian Housing Corporation) within the departmental framework. At the same time, the Department was given responsibility for the Office of Australian War Graves.

Repatriation benefits are provided in respect of service not only in the 1914–18 and 1939–45 Wars but also in the South African War 1899–1902, in the Korea and Malaya operations, in prescribed areas with the British Commonwealth Far East Strategic Reserve and the Special Overseas Forces and, in certain circumstances, in the Regular Defence Forces.

For information on war service land settlement *see* Year Book No. 61 (Chapter 22, Rural Industry) and for statistics relating to defence service homes *see* Chapter 19, Housing and Construction, of this Year Book.

For detailed information about repatriation pensions, allowances, benefits and services reference should be made to the annual reports of the Repatriation Commission.

REPATRIATION: TOTAL EXPENDITURE(*a*)
($'000)

Class	*1972–73*	*1973–74*	*1974–75*	*1975–76*	*1976–77*
Pensions, allowances and other benefits	303,183	362,196	477,608	568,068	662,876
Medical treatment	97,297	120,446	162,340	201,488	223,058
Administration	20,791	24,807	32,143	37,130	39,556
Works, rent and maintenance	6,870	8,903	14,792	19,332	14,020
Total expenditure	**428,141**	**516,352**	**686,883**	**826,018**	**939,510**

(*a*) Includes expenditure by Departments other than Repatriation as follows: 1972-73, $6,645,558; 1973-74, $8,369,015; 1974-75, $14,088,376; 1975-76, $18,846; 1976-77, $13,710.

Disability and dependants' pensions

The first provision for the payment of disability pensions to veterans and pensions to their dependants was made by the Commonwealth Parliament in the *War Pensions Act* 1914. This Act was repealed in 1920 by the *Australian Soldiers' Repatriation Act* 1920 (amended from 31 December 1950 to the *Repatriation Act*). Amendments to the Act in 1943 considerably widened the eligibility provisions, to the benefit mainly of members of the Citizen Military Forces who had not served outside Australia during the 1939–45 War.

For a brief description of eligibility for disability and dependants' pensions, the conditions for payment of the various rates and allowances, and of the operation of the Appeals Tribunals, *see* Year Book No. 55, pages 91–93.

Main pension rates vary each six months; current rates are available from Department of Veterans' Affairs Branch Offices.

Summary of disability and dependant's pensions

The following tables provide a summary of disability and dependants' pensions for the 1914–18 War, the 1939–45 War (including pensions payable under the *Interim Forces Benefits Act* 1947), the Korea and Malaya operations and the Far East Strategic Reserve, and Special Overseas Service and the Regular Forces. Statistics relating to miscellaneous disability and dependants' pensions are included collectively in each table, with further details being provided later in this section.

DISABILITY AND DEPENDANTS' PENSIONS: SUMMARY 1975-76

		1914–18 War	*1939–45 War(a)*	*Korea, Malaya and F.E.S.R.*	*Special Overseas Service*	*Serving Members*	*Miscellaneous*	*Total*
New claims granted	No.	115	7,826	466	1,393	597	20	10,417
Restorations	No.	27	3,287	148	67	2	1	3,532
Claims disallowed(*b*)	No.	185	2,495	87	299	654	. .	3,720
Pensions cancelled (gross)	No.	100	15,608	972	369	50	12	17,111
Deaths of pensioners	No.	4,697	7,506	79	21	4	16	12,323
Pensions in force at 30 June 1976	No.	53,892	412,947	12,878	17,722	884	538	498,861
Annual pension liability at 30 June 1976	$'000	79,228	267,617	3,926	3,327	239	604	354,941
Amount paid in pensions during the year 1975–76	$'000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	340,839

(*a*) Includes Interim Forces. (*b*) Number of veterans who had their claims for all their disabilities disallowed (*c*) At 30 June 1976 includes 12,225 student children over 16 years of age.

DISABILITY AND DEPENDANTS' PENSIONS(*a*): SUMMARY

	1972–73	*1973–74*	*1974–75*	*1975–76*	*1976–77*
New claims granted	17,859	12,688	11,302	10,417	9,856
Restorations	2,259	2,356	2,984	3,532	2,607
Total additions	*20,118*	*15,044*	*14,286*	*13,949*	*12,463*
Pensions cancelled (gross)	15,629	18,164	19,131	17,111	14,449
Deaths of pensioners	11,692	11,665	12,600	12,323	11,637
Total reductions	*27,321*	*29,829*	*31,731*	*29,434*	*26,086*

(*a*) Including miscellaneous pensions

Classes of disability and dependants' pensions

The following tables provide an analysis of the total number of new claims granted, pensions in force, and class of pension for 1975–76.

DISABILITY AND DEPENDANTS' PENSIONS: NEW CLAIMS GRANTED, 1975-76

Class	*1914–18 War*	*1939–45 War(a)*	*Korea, Malaya and F.E.S.R.*	*Special Overseas Service*	*Serving members*	*Miscellaneous*	*Total*
Veterans	33	2,034	78	217	193	8	2,563
Wives and widows of veterans	73	2,577	112	311	155	9	3,237
Children	3	3,148	270	861	249	3	4,534
Other dependants	6	67	6	4	. .	. .	83
Total	**115**	**7,826**	**466**	**1,393**	**597**	**20**	**10,417**

(*a*) Includes Interim Forces.

DISABILITY AND DEPENDANTS' PENSIONS IN FORCE: 30 JUNE 1976

Class	1914–18 War	1939–45 War(a)	Korea, Malaya and F.E.S.R.	Special Overseas Service	Serving members	Miscel-laneous	Total (b)
Veterans	13,396	173,592	4,890	5,882	322	181	197,463
Wives	20,502	157,612	3,342	4,469	220	163	186,308
Children	157	46,141	5,002	6,938	301	36	58,575
War widows	19,591	29,908	216	126	16	145	50,002
Children of deceased veterans	16	1,609	117	223	25	1	1,991
Orphans	2	100	6	1	..	2	111
Parents	18	3,337	93	81	..	8	3,537
Others	210	648	12	2	..	2	874
Total	**53,892**	**412,947**	**12,878**	**17,722**	**884**	**538**	**498,861**

(a) Includes Interim Forces. (b) Includes 12,225 student children over 16 years of age.

DISABILITY PENSIONS FOR INCAPACITATED VETERANS IN FORCE: BY CLASS OF PENSION 30 JUNE 1976

Class	1914–18 War	1939–45 War(a)	Korea, Malaya and F.E.S.R.	Special Overseas Service	Serving Members	Miscel-laneous	Total
Special Rate (T. & P. I.) or equivalent	3,499	13,479	142	45	10	18	17,193
Intermediate Rate	131	1,706	29	7	1	..	1,874
General Rate—from 10 per cent to 100 per cent assessed disability(b)	9,766	158,407	3,919	5,830	311	163	178,396
Total	**13,396**	**173,592**	**4,090**	**5,882**	**322**	**181**	**197,463**

(a) Includes Interim Forces. (b) Excludes 75 veterans who also receive benefits under items 1–6 of Schedule 5 and are included above under Special Rate (T. & P.I.) or equivalent.

Number of disability and dependants' pensions and annual liability, States, etc.

The following table shows the number of pensions in force and annual liability at 30 June 1976, according to place of payment.

DISABILITY AND DEPENDANTS' PENSIONS: NUMBER OF PENSIONS AND ANNUAL LIABILITY, 30 JUNE 1976

Place of payment	Number of disability and dependants' pensions in force at 30 June 1976(a)				Annual pension liability at 30 June(b) ($'000)
	Incapacitated veterans	Dependants of incapacitated veterans	Dependants of deceased veterans	Total	
New South Wales(c)	71,354	86,372	20,896	178,622	131,595
Victoria	50,422	63,904	15,525	129,851	93,508
Queensland	32,040	40,807	7,916	80,763	57,438
South Australia(d)	18,246	22,406	4,762	45,414	29,469
Western Australia	16,438	20,211	3,970	40,619	24,585
Tasmania	8,126	10,674	1,978	20,778	15,748
Overseas	837	1,308	669	2,814	2,598
Total	**197,463**	**245,682**	**55,716**	**498,861**	**354,941**

(a) Includes Interim Forces 1939–45 War. (b) Includes domestic allowance payable to widows. (c) Includes Australian Capital Territory. (d) Includes Northern Territory.

Summary of disability and dependants' pensions, 1972-73 to 1976-77

The following table shows the number of pensions granted, claims rejected, pensions in force and the annual liability for pensions in each of the years ended 30 June 1973 to 1977.

DISABILITY AND DEPENDANTS' PENSIONS: SUMMARY

			Number of disability and dependants' pensions in force at 30 June(a)				
Year	*Pensions granted*	*Claims disallowed (b)*	*Incapacitated veterans*	*Dependants of incapacitated veterans*	*Dependants of deceased veterans*	*Total*	*Annual pension liability at 30 June(c) ($'000)*
1972–73	17,859	3,853	211,559	276,266	58,446	546,271	227,744
1973–74	12,688	3,680	207,055	267,136	57,664	531,855	272,556
1974–75	11,302	3,187	202,047	255,537	56,783	514,367	331,491
1975–76	10,417	3,720	197,463	245,682	55,716	498,861	354,941
1976–77	9,856	3,951	193,123	237,237	54,804	485,164	390,139

(*a*) Includes Interim Forces 1939–45 War. (*b*) The number of claimants who had the claims for all their disabilities disallowed. (*c*) Includes domestic allowance payable to widows.

The following table shows, for the years 1972–73 to 1976–77, the amounts paid in pensions and the place of payment.

DISABILITY AND DEPENDANTS' PENSIONS: AMOUNT PAID(*a*)
($'000)

Place of payment	*1972–73*	*1973–74*	*1974–75*	*1975–76*	*1976–77*
New South Wales(*b*)	81,599	91,874	115,502	128,335	136,198
Victoria	60,739	67,329	83,673	89,249	97,934
Queensland	36,821	41,174	50,685	54,622	61,161
South Australia(*c*)	18,405	20,962	26,525	27,908	30,974
Western Australia	15,428	17,338	21,812	23,077	25,541
Tasmania	9,851	11,176	13,698	14,827	16,637
Overseas	1,646	1,832	2,162	2,068	2,161
Total	**224,489**	**251,685**	**314,058**	**340,086**	**370,606**

(*a*) Includes domestic allowances paid to widows. (*b*) Includes Australian Capital Territory. (*c*) Includes Northern Territory.

Miscellaneous disability and dependants' pensions

The Commission is also responsible for the payment of pensions and allowances to beneficiaries under the *Seamen's War Pensions and Allowances Act* 1940, the *Papua New Guinea* (*Members of the Forces Benefits*) *Act* 1957 and Cabinet decisions granting eligibility to persons who were attached to the armed forces during war-time.

The following table shows the number and class of pensions and the annual liability at 30 June 1976, and the table thereafter shows the amounts paid during the years 1972–73 to 1976–77 and the place of payment.

MISCELLANEOUS DISABILITY AND DEPENDANTS' PENSIONS: NUMBER OF PENSIONS AND ANNUAL LIABILITY, 30 JUNE 1976

	Number of pensions in force at 30 June 1976				
Class	*Veterans(a)*	*Dependants of veterans*	*Dependants of deceased veterans*	*Total*	*Annual pension liability at 30 June(b) ($'000)*
Act of grace	115	130	49	294	256
Seamen's war pension	63	69	53	185	190
New Guinea civilians	3	. .	56	59	158
Total	**181**	**199**	**158**	**538**	**604**

(*a*) 'Veterans' in this context is a person in respect of whose war-time experience a pension is paid. (*b*) Includes domestic allowances payable to widows.

MISCELLANEOUS DISABILITY AND DEPENDANTS' PENSIONS(*a*)
($'000)

Place of payment	*1972–73*	*1973–74*	*1974–75*	*1975–76*	*1976–77*
New South Wales(*b*) .	216	212	286	319	358
Victoria . . .	124	130	164	200	223
Queensland . .	72	71	108	118	139
South Australia(*c*) .	46	47	58	63	69
Western Australia .	34	25	33	40	45
Tasmania . . .	5	6	9	10	17
Overseas . . .	1	1	1	1	1
Total . .	**498**	**492**	**659**	**751**	**852**

(*a*) Includes domestic allowance payable to widows. (*b*) Includes Australian Capital Territory.
(*c*) Includes Northern Territory.

Service pensions

The *Repatriation Act* 1920 provides for a service pension to be paid (subject to an income test where the person is neither blind nor at least 70 years of age) to the following persons:

- male veterans who served in a theatre of war (or in a designated *Operational* or *Special Overseas Service* area) and have attained the age of sixty years or are permanently unemployable;
- female veterans who suffer from tuberculosis, or who served in a theatre of war, or served abroad or embarked for service abroad and have attained the age of fifty-five years, or are permanently unemployable;
- veterans of the South African War 1899–1902 who were members of a naval or military force or contingent raised in Australia for active service in that war;
- veterans of other British Commonwealth Forces who served outside the country of enlistment or within that country if a campaign medal has been awarded in respect of such service. Ten years residence in Australia is a necessary qualification.

Main pension rates vary each six months; current rates are available from the Department of Veterans' Affairs' Branch Offices.

A veteran in receipt of a service pension is entitled, with certain exceptions, to free medical benefits for disabilities not service-related. These benefits include general practitioner service, specialist service where necessary, full pharmaceutical benefits, surgical aids and appliances (including spectacles), dental treatment, and treatment in Repatriation General Hospitals.

SERVICE PENSIONS, SUMMARY, 1975-76

	South African War	*1914–18 War*	*1939–45 War*	*Korea-Malaya operations*	*Special Overseas Service*	*Act of Grace*	*British Commonwealth*	*Total*
New claims granted . . .	..	435	27,009	151	17	37	2,340	29,989
Restorations	..	32	468	4	..	..	6	510
Cancellations (gross) . . .	6	499	2,713	31	2	3	189	3,443
Deaths	10	3,017	4,063	16	2	4	19	7,131
Pensions in force at 30 June 1976 .	24	25,841	112,999	497	26	140	2,148	141,675
Annual liability at 30 June 1976 $'000	40	44,850	188,004	837	36	233	3,122	237,182
Amount paid in pensions during 1975–76 . . . $'000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	218,926

SERVICE PENSIONS: SUMMARY

	1972–73	*1973–74*	*1974–75*	*1975–76(a)*	*1976–77*
New claims granted	24,888	23,229	23,173	29,989	32,404
Restorations	1,384	641	414	510	378
Total additions	*26,272*	*23,870*	*23,587*	*30,499*	*32,782*
Cancellations (gross)	2,538	5,793	3,940	3,443	3,774
Deaths	5,238	5,692	6,447	7,131	6,875
Total reductions	*7,776*	*11,485*	*10,387*	*10,574*	*10,649*

(*a*) The increased number of new claims granted in 1975–76 was partly due to the abolition of the means test for persons 70 years and over and to an ageing population of ex-service personnel.

Class of service pensions

The following tables give an analysis of the total number of new claims granted and pensions in force for 1975-76.

SERVICE PENSIONS: NEW CLAIMS GRANTED, 1976

Class	*South African War*	*1914-18 War*	*1939-45 War*	*Korea-Malaya operations*	*Special Overseas Service*	*Act of Grace*	*British Common-wealth*	*Total*
Veterans	..	266	15,807	101	10	20	1,455	17,659
Wives and widows of veterans	..	169	11,198	50	7	17	885	12,326
Children	..	..	4	..	..	..	..	4
Total	..	**435**	**27,009**	**151**	**17**	**37**	**2,340**	**29,989**

SERVICE PENSIONS: NUMBER IN FORCE, 30 JUNE 1976

State	*South African War*	*1914-18 War*	*1939-45 War*	*Korea-Malaya operations*	*Special Overseas Service*	*Act of Grace*	*British Common-wealth*	*Total*
New South Wales(*a*)	6	8,244	36,573	207	12	39	555	45,636
Victoria	7	7,555	28,057	85	2	49	543	36,298
Queensland	3	3,985	21,294	109	6	29	385	25,811
South Australia(*b*)	2	2,845	10,847	26	4	14	384	14,122
Western Australia	3	2,230	10,972	47	..	8	212	13,472
Tasmania	3	972	5,109	19	2	1	57	6,163
Overseas	..	10	147	4	..	..	12	173
Total	**24**	**25,841**	**112,999**	**497**	**26**	**140**	**2,148**	**141,675**

(*a*) Includes Australian Capital Territory. (*b*) Includes Northern Territory.

Number, by class, of service pensions and amount paid

The following tables show the number of each class of service pension in force, the annual liability and the amounts paid for the years 1972-73 to 1976-77.

SERVICE PENSIONS: NUMBER OF EACH CLASS OF PENSION AND ANNUAL LIABILITY

	Number of service pensions at 30 June payable to—							
	Veterans who are—			*Dependants(a) of veterans where the veteran is—*				
Year	*Aged veterans*	*Perma-mently un-employable*	*Suffering from pulmonary tuberculosis*	*An aged veteran*	*Perma-nently un-employable*	*Suffering from pulmonary tuberculosis*	*Total*	*Annual pension liability at 30 June ($'000)*
1972-73	47,430	19,121	1,333	9,539	17,635	1,067	96,125	82,011
1973-74	56,119	19,191	1,417	15,532	15,393	853	108,505	119,181
1974-75	62,523	19,298	1,425	22,153	15,438	889	121,726	181,364
1975-76	72,432	20,224	1,424	30,773	15,973	849	141,675	237,182
1976-77	82,567	21,652	1,466	40,104	17,045	881	163,715	310,512

(*a*) Includes dependants of deceased service pensioners.

NOTE. *See* footnote (*a*) last table previous page.

SERVICE PENSIONS: AMOUNT PAID
($'000)

Place of payment	*1972–73*	*1973–74*	*1974–75*	*1975–76*	*1976–77*
New South Wales(*a*)	23,011	33,105	49.985	73,181	90,577
Victoria	18,033	26,532	40,180	55,141	72,127
Queensland	13,567	19,070	28,033	39,181	52,419
South Australia(*b*)	7,467	10,340	15,133	21,406	28,668
Western Australia	7,394	10,191	15,149	20,560	26,933
Tasmania	2,827	4,356	6,669	9,314	12,327
Overseas	17	32	58	143	230
Total	**72,316**	**103,626**	**155,207**	**218,926**	**283,281**

(*a*) Includes Australian Capital Territory. (*b*) Includes Northern Territory.

Medical treatment for veterans and dependants of veterans

Medical treatment is provided for all disabilities which have been accepted as service-related, and for pulmonary tuberculosis and cancer not related to service. In addition, and subject to certain conditions, treatment is provided for most non-service-related disabilities for: incapacitated veterans receiving disability pensions at or above the maximum (100 per cent) General Rate; veterans or nurses who served in the 1914–18 War; veterans of the Boer War; ex-prisoners-of-war; war widows and certain other dependants of deceased male veterans whose deaths have been accepted as service-related, and of deceased T. & P. I. pensioners; and certain service pensioners.

Treatment is provided at six Repatriation General Hospitals (one in each State) and five auxilary hospitals and an ANZAC hostel in Victoria. The total number of available beds for patients in wards or parts of wards open for use in all these institutions at 30 June 1976 was 3,210 and expenditure during 1975–76 amounted to $89,510,829. In addition, expenditure of $109,989,468 was incurred during 1975–76 on medical services outside these institutions.

Community patients. Where spare bed capacity exists in the Repatriation General Hospitals, patients may be admitted from the general community (mainly veterans with conditions that are not service-related, hospital staff and the local community).

Repatriation hospitals and institutions

Details of full-time staff in Repatriation general hospitals and other Repatriation institutions are given in the following table.

REPATRIATION HOSPITALS AND INSTITUTIONS: FULL-TIME STAFF
30 JUNE 1976

Type of institution	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
General hospitals—							
Medical staff(*a*)	165	87	46	41	18	9	366
Nursing staff	872	416	384	280	265	59	2,276
Other staff	1,297	896	585	413	499	137	3,827
Total, general hospitals	*2,334*	*1,399*	*1,015*	*734*	*782*	*205*	*6,469*
Other in-patient institutions(*b*)	281	137	219	..	57	..	694
Out-patient clinics(*b*)	159	56	..	33	35	..	283
Limb and appliance centres(*b*)	85	75	31	23	16	13	243
Grand total	**2,859**	**1,667**	**1,265**	**790**	**890**	**218**	**7,689**

(*a*) Medical Officers only, excludes psychologists, speech therapists, etc. (*b*) Total staff.

The following table gives details of in-patients treated at Repatriation General Hospitals and other Repatriation institutions in each State. The figures shown refer to treatment episodes, e.g. a person who is admitted to hospital twice during a year is counted twice.

REPATRIATION GENERAL HOSPITALS AND INSTITUTIONS: IN-PATIENTS TREATED, 1975–76

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
REPATRIATION GENERAL HOSPITALS							
In-patients at beginning of year	913	502	380	281	337	84	2,497
Admissions and re-admissions during year	16,836	7,868	9,360	5,513	6,740	1,512	47,829
Total in-patients treated	*17,749*	*8,370*	*9,740*	*5,794*	*7,077*	*1,596*	*50,326*
Discharges	16,148	7,381	8,928	5,185	6,381	1,414	45,437
Deaths	861	619	393	347	370	96	2,626
In-patients at end of year	800	370	419	262	326	86	2,263
Average daily beds occupied	804	356	368	236	299	74	2,137
OTHER REPATRIATION INSTITUTIONS							
In-patients at beginning of year	193	105	152	23	39	..	512
Admissions and re-admissions during year	2,387	753	1,016	52	248	..	4,456
Total in-patients treated	*2,580*	*858*	*1,168*	*75*	*287*	..	*4,968*
Discharges	2,229	693	921	68	231	..	4,142
Deaths	145	65	110	7	10	..	337
In-patients at end of year	206	100	137	(*a*)	46	..	489
Average daily beds occupied	191	86	143	22	41	..	483

(*a*) Biralee closed 31 March 1976.

In addition to the Repatriation institutions, eligible patients are treated in other country and metropolitan hospitals and nursing homes at Repatriation expense. During 1975–76, 21,435 Repatriation in-patients were accommodated and treated in hospitals and 7,994 in nursing homes.

Repatriation psychiatric patients requiring custodial care are, by agreement with the State Governments, accommodated at the expense of the Department of Veterans' Affairs in separate wings of psychiatric hospitals administered by the State authorities. Excluding 60 on trial leave, there were 646 Repatriation patients in these hospitals at 30 June 1976.

Out-patient treatment is provided throughout Australia at Repatriation hospitals and clinics and through the Repatriation Local Medical Officer Scheme. During 1975–76, 608,864 out-patients were treated at Repatriation institutions, and visits to or by local medical officers totalled 2,505,016. The number of Repatriation local medical officers in Australia at 30 June 1976 was 6,976.

Artificial limb and appliance services

A wide range of artificial limbs and other surgical aids is supplied by the artificial limb and appliance centre in each State capital and Darwin. In addition, the Department maintains the Central Development Unit located in Melbourne, and engages in research and development in the prosthetic and orthotic field.

Since 1973, artificial limbs have been provided free of charge to all members of the community who need them, either through the Department's artificial limb and appliance centres or on order through commercial limb-makers. The number of limbs supplied through the Department has increased significantly as the community has taken advantage of the free-limbs scheme.

Details of production at all centres during 1975–76 are as follows: arms, 331; legs, 2,485; surgical and adapted footwear, 7,745; other surgical appliances, 1,575; and repairs, 28,745.

General Repatriation benefits and miscellaneous

Other activities of Department of Veterans' Affairs

In addition to the payment of pensions and the provision of medical treatment, the Department also provides various benefits and allowances designed to meet the needs of special classes of veterans and their dependants. These include the Soldiers' Children Education Scheme (see page 216).

In addition, gift cars and an annual allowance for their upkeep are provided for veterans who, as a result of service, have suffered the amputation of both legs above the knees or amputation of one leg above the knee plus any two other amputations (above the ankle or at or above the wrist) or complete paraplegia resulting in the total loss of the use of both legs. A grant of up to $100 may be made towards the funeral expenses of eligible veterans and certain of their dependants. Payment of up to $10 may be made to provide such necessities as meals, sleeping accommodation, etc. for veterans in need of immediate relief. Also, certain concessions in telephone rental charges are provided for some classes of veterans and their dependants, including blinded veterans, war and defence widows and certain service and Special Rate disability pensioners. Veterans who have been blinded as a result of service may be issued with talking book machines. The Australian Red Cross Society supplies 'book' records or cassettes for these machines free of charge, thus enabling the blinded to enjoy a wide range of literature.

Expenditure in 1976–77 on general Repatriation benefits for all wars was $8,137,000, comprising Soldiers' Children Education Scheme, $3,468,000; recreation transport allowance, $838,000; and other benefits, $3,831,000.

As at 30 June 1977, trust and other funds administered by the Department of Veterans' Affairs held $18,555,269 in securities (face value) and $1,337,166 in cash, a total of $19,892,435.

Reciprocal arrangements with the United Kingdom, New Zealand and other countries provide for the payment of pensions, etc. to eligible Australian veterans living overseas and to eligible veterans from overseas who are living in Australia.

Soldiers' Children Education Scheme

The Soldiers' Children Education Scheme was established in 1921 and operates with the assistance of the voluntary Education Boards in each State. These Boards consist of representatives of government and non-government education authorities and of ex-service and other organisations which have a general interest in the welfare of the children of veterans. The objects of the Scheme are to assist and encourage eligible children in acquiring a standard of education compatible with their aptitude and ability, and to prepare them to enter an agricultural, commercial, professional, or industrial calling of their own choice. Eligible children are children of veterans whose deaths have been accepted as service-related; or of veterans who died from causes not service-related but who were receiving at the date of death a disability pension at a Special Rate for blindness, total and permanent incapacity, or amputation of two or more limbs; or of veterans who, as a result of service, are blinded totally and permanently incapacitated. From the commencement of primary education until the child reaches twelve years of age, school requisites and fares are provided. From the commencement of secondary education or from the age of twelve years, whichever is earlier, an education allowance is payable while the child is undertaking primary or secondary education. Assistance beyond secondary education is provided where an approved beneficiary continues with a course of specialised education or training necessary for a career. At this stage of training, in addition to the education allowance, fees are paid and text books, essential equipment and other minor benefits are provided.

All education allowances are subject to an income test, i.e. the amount of education allowance payable depends on the amount of income a child receives over the allowed limit. Weekly rates of allowances vary from time to time; current rates are available from the Department of Veterans' Affairs' Branch Offices.

The following tables show the costs of education under the scheme for the year ended 30 June 1976, and the number of children in receipt of benefit at 30 June 1976.

SOLDIERS' CHILDREN EDUCATION SCHEME: EXPENDITURE, 1975-76

($'000)

	N.S.W.(a)	*Vic.*	*Qld*	*S.A.(b)*	*W.A.*	*Tas.*	*Aust.*
Cost of education of beneficiaries—							
Under 12 years of age	3	4	4	1	1	1	14
12 years of age and over	1,462	918	532	297	186	128	3,523
Total expenditure	**1,465**	**922**	**536**	**298**	**187**	**129**	**(c)3,537**

(a) Includes Australian Capital Territory. (b) Includes Northern Territory. (c) Excludes overseas expenditure of $16,000.

SOLDIERS' CHILDREN EDUCATION SCHEME: NUMBER RECEIVING BENEFITS(*a*) AT 30 JUNE 1976

Type of training	*N.S.W.(b)*	*Vic.*	*Qld*	*S.A.(c)*	*W.A.*	*Tas.*	*Overseas*	*Total*
At school—								
Aged under 14 years(*d*)	352	184	187	73	59	78	6	939
Aged 14 and under 16 years	524	331	262	96	71	81	6	1,371
Aged 16 and under 18 years	420	274	138	89	49	38	8	1,016
Total at school	*1,296*	*789*	*587*	*258*	*179*	*197*	*20*	*3,326*
Professional	530	344	217	131	80	44	6	1,352
Agricultural	..	..	..	2	3	..	..	..
Industrial	..	..	..	..	..	..	..	..
Grand total	**1,826**	**1,133**	**804**	**389**	**259**	**241**	**26**	**4,678**

(*a*) Refers only to children in receipt of an education allowance. (*b*) Includes Australian Capital Territory. (*c*) Includes Northern Territory. (*d*) From 12 years of age or the commencement of secondary education, whichever is the earlier.

Settlement of returned service personnel on the land

Reference to the settlement of returned service personnel on the land will be found in Chapter 13, Rural Industry.

Re-establishment benefits for former regular and former national servicemen

Subject to prescribed conditions, vocational training and business loans are provided for former regular and former national servicemen with a view to ensuring that they are not at a disadvantage when they return to civil life. Loans from $5,000 (business and professional) and $10,000 (agricultural) may be granted to veterans in these categories who satisfy prescribed requirements in respect of suitability of their proposed business propositions and adequacy of security. Agricultural loans are administered by the Department of Primary Industry.

Survey of Ex-service personnel, widows and children

In November 1971, a survey based on the quarterly population survey (*see* Chapter 8, Manpower) was conducted at the request of the then Department of Repatriation and the Services Canteen Trust Fund. Details of the survey were published in Year Book No. 59, page 112 and in the mimeographed bulletin *Ex-service Personnel, Widows and Children* (November 1971) (4403.0).

The Services Canteens Trust Fund

The Services Canteens Trust Fund was established under the *Services Trust Funds Act* 1947. Its funds are derived from the assets and profits of wartime services canteens, mess and regimental funds of disbanded units, and several other sources.

The total amount transferred to the Fund to 31 December 1976 was $11,059,103. The Act prescribed that of this, $5 million and such further amounts as the trustees of the Fund might from time to time decide should be devoted to the provision of education facilities for the children of eligible veterans, and that the balance of the Fund should be used to provide relief for veterans and their dependants in necessitous circumstances.

The Fund is administered by eight honorary trustees appointed by the Governor-General. The trustees have power to determine the persons or groups of persons to benefit from the Fund and the extent of the benefits to be granted within the provisions of the Act, and to appoint regional committees to assist with the administration. Members of regional committees are all persons who served in the 1939-45 War or are widows of men who served during the war. The trustees and members of regional committees serve in an honorary capacity.

Assistance from the Fund

Persons eligible for assistance from the Fund are those who, between 3 September 1939 and 30 June 1947, served in the Australian Naval, Military or Air Forces, including members of the canteens staff of any ship of the Royal Australian Navy, persons duly accredited to any part of the Defence Forces who served in an official capacity on full-time paid duty, and their dependants.

The trustees have introduced schemes for providing welfare relief for veterans who are eligible for benefits, and for their dependants; benefits for children of eligible veterans who are suffering from serious and incapacitating afflictions; and education benefits for the children of eligible veterans. The total assistance granted under these three schemes from the inception of the Fund to 31 December 1976 was $14,354,516 ($456,676 during 1976) distributed as follows: welfare relief, $4,500,314 ($164,379); assistance for afflicted children, $345,746 ($1,137); and educational assistance, $9,508,456 ($291,160).

For detailed information on the operation of the Fund, reference should be made to the annual reports of the Services Canteens Trust Fund.

Further information on subjects dealt with in this chapter is included in the annual bulletins *Australian National Accounts* (5204.0); *Public Authority Finance: Federal Authorities* (5502.0); *Public Authority Finance: State and Local Government Authorities* (5504.0); *Public Authority Finance: State Governments: Social Services* (5508.0); *Public Authority Finance: Outlay on Aboriginal Affairs by Federal Authorities* (5509.0); and *Social Indicators* (4101.0). Current and summarised information on Commonwealth Government social services is contained in the *Monthly Review of Business Statistics* (1304.0).

CHAPTER 10

HEALTH

This chapter is concerned with activities of the Commonwealth Department of Health including quarantine, national health benefits programs and Federal grants for health purposes; activities of the State Health Departments; statistics of hansenide hospitals and mental health institutions; and statistics of notifiable diseases, causes of death, and cremations.

Further information about the administration of public health services is contained in the annual reports of the Director-General of Health; the annual reports of the State health authorities; and in the Year Books and annual bulletins published by the State offices of the Australian Bureau of Statistics.

NATIONAL HEALTH SERVICES

Prior to an amendment to the Constitution in 1946, the only health function of the Commonwealth Department of Health was in relation to quarantine. Consequent upon this amendment, the Commonwealth Government was given powers to make laws about pharmaceutical, hospital and sickness benefits and medical and dental services. The Commonwealth Government also has used its powers under section 96 of the Constitution to make grants to the States for health purposes. In addition, the Commonwealth Government gives financial assistance to certain organisations concerned with public health matters. A number of Commonwealth Government health organisations have been established; detailed information on the functions and operations of these organisations is given in this and previous Year Books and in the annual reports of the Commonwealth Director-General of Health.

Quarantine

The *Quarantine Act* 1908 is administered by the Commonwealth Department of Health and has three sections of disease control: human quarantine; animal quarantine; and plant quarantine.

In respect of interstate movements of animals and plants, the Act becomes operative only if the Governor-General considers that Commonwealth Government action is necessary for the protection of any State or States. In general, the administration of interstate movements of animals and plants is left in the hands of the States.

Human quarantine

Passengers and crews arriving in Australia from overseas, whether by air or sea, are subject to medical inspection for the purpose of preventing the introduction of disease into Australia. At the major ports full-time quarantine officers carry out the work, but in minor ports local doctors may act as part-time quarantine officers. In each State and in the Northern Territory, quarantine activities are controlled by the Directors of Health, each of whom is a senior medical officer of the Commonwealth Department of Health.

The main concern of examining officers is the detection of quarantinable diseases including smallpox, cholera, yellow fever, plague, and typhus fever. These diseases are not endemic to Australia and it is of great importance to prevent their entry. Quarantine stations at major ports are kept ready for occupation at all times. In addition, persons arriving in Australia and suffering from infectious diseases such as chicken-pox, mumps, scarlet fever, and measles are directed to appropriate care and placed in isolation where necessary.

Valid International Certificates of Vaccination are required of travellers to Australia as follows:

Smallpox. From travellers over the age of 12 months who, within the last 14 days, have been in a country of which any part is infected with smallpox.

Cholera. No certificate is required.

Yellow fever. From travellers who have been in yellow fever endemic zones within the past 6 days.

All passengers, whether they arrive by sea or air, are required to give their intended place of residence in Australia so that they may be traced if a case of disease occurs among the passengers on the aircraft or ship by which they travelled to Australia.

Isolation. Under the Quarantine Act, airline and shipping operators are responsible for the expenses of isolation of all travellers who disembark either (i) having been in an endemic zone within 6 days of arrival and not possessing a yellow fever vaccination certificate; or (ii) having arrived by air without a smallpox vaccination certificate and refusing to be vaccinated on arrival.

The majority of infectious (non-quarantinable) diseases dicovered among passengers and crew of overseas vessels includes venereal disease, infectious hepatitis and chickenpox.

Animal quarantine

Animal quarantine, authorised by the provisions of the *Quarantine Act* 1908, aims at preventing the introduction or spread of animal diseases. It covers the importation of all animals, raw animal products and biological cultures associated with animal diseases, and goods associated with animals.

For further details *see* Year Book No. 61, page 449.

Plant quarantine

Arising from both its dependence upon exotic plant species for agriculture, horticulture and forestry and its island continental isolation, Australia is free of numerous plant pests and diseases that occur elsewhere in the world. Since 1 July 1909 the importation into Australia of plant materials has been subject to an increasingly stringent quarantine; some materials are admitted only under certain conditions while others are prohibited altogether. The quarantines are designed to exclude from the country unwanted pests and plant diseases. It is not possible to predict how a new plant pest or disease will perform when introduced to a new environment free of its natural enemies. Hence the general objective is to keep any pest or disease out of the country which could cause serious economic losses to Australia's agriculture, horticulture or forests.

For further details *see* Year Book No. 61, page 449.

Personal health services and subsidies

National Health Benefits

Following a comprehensive review of Medibank (*see* Year Book No. 61, pages 450–451), the Commonwealth Government decided to modify the operations of the health insurance program with effect from 1 October 1976. As a result of the modifications, all residents may elect to be covered under Standard Medibank, but must insure privately if they elect otherwise.

There are now three main choices of health insurance available:

(i) *Standard Medibank.* The benefits are basically 85 per cent of scheduled fees charged for medical services or the schedule fee less $5, whichever is the greater, and free standard ward accommodation in recognised (i.e. public) hospitals with free medical care provided by doctors engaged by the hospitals. The 85 per cent coverage also applies to consultation by participating optometrists and certain services by approved dentists in the operating theatres of approved hospitals.

The Australian Health Insurance Commission (a Statutory Authority constituted by act of Parliament) administers Standard Medibank.

(ii) *Standard Medibank plus basic "hospital-only" insurance.* This provides all the benefits of Standard Medibank plus choice of doctor in hospital and benefits equal to the fees charged for shared ward accommodation in a recognised hospital.

The "hospital-only" insurance coverage is available from private hospital benefits organisations including Medibank (Private) which, under the modifications to Medibank, has been established as a registered organisation to compete on equal terms with other private organisations. Medibank (Private) is administered by the Health Insurance Commission.

Contribution rates payable for basic "hospital-only" insurance are subsidised by the Commonwealth Government and are designed to assist lower income earners.

(iii) *Basic private health insurance.* This provides basic hospital and medical benefits, and is available from private health benefits organisations including Medibank (Private).

In addition to basic private health insurance and basic "hospital-only" insurance, private health benefits organisations offer coverage against: the gap between medical benefits and scheduled fees, fees charged for single room accommodation in recognised hospitals, and the cost of private hospital accommodation. They also offer various ancillary services.

Levy on Income

The program now provides for a health insurance levy equivalent to 2.5 per cent of personal taxable income, with a maximum levy payment of $300 per annum (family) and $150 per annum for a person without dependants. Those on the lowest incomes, most pensioners, certain Defence Force personnel and Repatriation beneficiaries, and those who take private insurance for both the basic medical and basic hospital benefits are exempt from the levy. Privately insured persons are required to make a declaration for taxation purposes in order to gain exemption from the levy. The responsibility for the administration of the levy rests with the Commissioner of Taxation.

Hospital Benefits Reinsurance Arrangements

To replace the Special Account the Commonwealth Government established on and from 1 October 1976 a Hospital Benefits Reinsurance Trust Fund in respect of the basic hospital benefits tables. Both the Government and all registered hospital benefits organisations contribute to the Fund under a pooling arrangement. Under the Reinsurance arrangements, organisations are able to transfer the benefits liability for contributors whose period of hospitalisation in a contributor year exceeds 35 days.

Hospital Cost Sharing Arrangements

New hospital agreements between the Commonwealth and State Governments became effective in all States on 1 October 1976. Under these agreements the Commonwealth Government agrees to meet fifty per cent of the net operating costs of recognised (i.e. public) hospitals within the terms of annual budgets formulated by State Standing Committees comprising representatives of the Commonwealth and the States and approved by the respective Health Ministers. There is also provision for adjusting the budgets as necessary throughout the year by the same procedures.

The agreements also provide for free hospital treatment to be provided for patients in Standard Medibank who receive standard ward accommodation and medical treatment by a doctor engaged by the hospital. Fees are raised in all other circumstances, and are able to be covered by private health insurance.

Nursing Home Benefits

Benefits available in respect of qualified nursing home patients for accommodation up to 1 October 1977 were:

(i) *Ordinary Care Benefit* of $3.50 a day for all qualified nursing home patients in premises approved as nursing homes under the National Health Act;

(ii) *Supplementary Benefit* of $3.00 a day for patients who required and received intensive nursing home care as defined in the National Health Act, such benefit being payable in addition to the ordinary care benefit and making a total of $6.50 a day; and

(iii) *Additional Benefit*, an amount paid by the Commonwealth for patients who were covered by Standard Medibank, and by the respective health insurance organisation for patients who were privately insured with both a registered hospital benefits organisation and a registered medical benefits organisation, and based on a minimum patient contribution ($6.70 a day from 7 July 1977).

On 1 October 1977 the Ordinary Care Benefit and the Additional Benefit were combined. Since that date there has been one level of basic nursing home benefit in each State for nursing home patients receiving ordinary care, with an extra $6 a day benefit (increased from $3 a day) for patients receiving extensive care (previously termed intensive care).

Patients insured with a registered private health insurance organisation for basic hospital insurance benefits receive these benefits from the health insurance organisation; other patients receive them from the Department of Health.

The maximum levels of basic nursing home benefit payable in each State are: New South Wales $13.65 per day; Victoria $19.65; Queensland $11.80; South Australia $17.40; Western Australia $11.75; and Tasmania $14.85.

Where the fees charged by a nursing home are in excess of the combined total of basic nursing home benefit plus the patient contribution, the difference must be met by the patient. Conversely, where the nursing home fee is less than this combined total, the basic benefit (whether private health insurance benefit or Government benefit) is reduced by that amount.

As an alternative to the provision of patient benefits under the National Health Act (as outlined above), the *Nursing Homes Assistance Act* 1974 provides for an arrangement whereby the Commonwealth Government may meet the net operating deficits of religious and charitable nursing homes.

All organisations wishing to participate in the deficit financing arrangements must enter into a formal agreement with the Commonwealth Government for that purpose.

Nursing home patient benefits as provided under the *National Health Act* are not payable to a nursing home during any period in respect of which that nursing home participates under the deficit financing arrangements.

Nursing homes participating under the deficit financing arrangements are required to charge a minimum patient fee currently at the rate of $47.10 a week, but provision does exist for this 'prescribed fee' to be waived in certain circumstances. However, since 1 October 1977, patients in such homes who have basic hospital insurance have been charged an additional fee equal to the health insurance benefits, and health insurance benefits are payable.

A *domiciliary nursing care benefit* is payable at the rate of $14 a week ($2 daily) to persons who are willing and able to care, in their own homes, for aged parents or immediate relatives who would otherwise qualify for nursing home benefits. The basic criteria for the payment of the benefit are that the patient must be aged 65 years or over and be in need of continuing nursing care and receiving regular visits by a registered nurse. This benefit is not subject to a means test and is payable, under the *National Health Act*, in addition to any entitlements that persons may have under the *Social Services Act* or the *Repatriation Act* for pensions or other supplementary allowances.

NURSING HOME AND DOMICILIARY NURSING CARE BENEFITS AND PAYMENTS, UNDER THE NATIONAL HEALTH ACT AND NURSING HOMES ASSISTANCE ACT, 1975–76
($'000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Nursing home patients ($3.50)	23,974	9,439	7,669	3,501	5,165	1,314	(*a*)	244	51,304
Intensive care nursing home patients ($3.00) . .	7,261	6,023	3,729	1,961	2,371	416	(*a*)	92	21,854
Pensioner nursing home patients	27,199	17,732	10,583	6,307	5,699	2,078	(*a*)	230	69,828
Nursing home deficit financing payments . . .	16,435	9,827	7,773	9,513	5,561	2,794	(*b*)	(*b*)	51,904
Domiciliary nursing care ($2.00)	2,322	1,811	1,412	852	847	452	(*a*)	(*c*)	7,697
Total . . .	**77,192**	**44,831**	**31,166**	**22,135**	**19,643**	**7,053**	**(a)**	**567**	**202,587**

(*a*) Included in South Australia. (*b*) There are no deficit financed homes in N.T. or A.C.T. (*c*) Included in New South Wales.

Federal Authorities Expenditure

Pharmaceutical benefits

A person receiving treatment from a medical practitioner registered in Australia is eligible for benefits on a comprehensive range of drugs and medicines when they are supplied by an approved pharmacist upon presentation of a prescription or by an approved private hospital when that person is receiving treatment at the hospital. Special arrangements exist to cover prescriptions dispensed at locations outside the normal conditions of supply, e.g. in remote areas.

Since the introduction of the Medibank scheme patients in recognised hospitals are supplied with drugs and medicinal preparations under that scheme.

Patients other than eligible pensioners and their dependants now pay a contribution of $2.00 for each benefit prescribed. The total cost of prescriptions for eligible pensioners and their dependants is met by the Commonwealth Government.

Under the Pharmaceutical Benefits Scheme the total cost, including patient contributions, for prescription drugs was $95.2 million in 1975–76 and $111.7 million in 1976–77. These figures do not include benefits supplied by certain hospitals and miscellaneous services or retrospective adjustments of chemists' remunerations.

Summary of cash benefits to persons

For an analysis by function and economic type of expenditure by all Commonwealth Government authorities *see* Chapter 22, Public Finance.

Most Commonwealth Government health benefits are financed through the National Welfare Fund and the Health Insurance Commission. The following two tables show cash benefits to persons by Federal Authorities for recent years.

FEDERAL AUTHORITIES: HEALTH CASH BENEFITS TO PERSONS 1976-77

($'000)

	N.S.W. (a)	*Vic.*	*Qld*	*S.A. (a)*	*W.A.*	*Tas.*	*N.T. (a)*	*A.C.T. (a)*	*Total*
Hospital and clinical services—									
Hospital benefits for pensioners	14	1	2	..	..	2	..	3	21
Medibank—Private hospital daily bed payments	22,936	21,178	12,860	8,181	5,993	1,914	..	176	73,238
Hospital benefits, n.e.c.	14,866	8,469	3,337	2,787	1,225	410	..	8	31.102
Nursing home benefits	91,820	52,553	33,266	26,460	22,228	7,795	..	..	234,122
Tuberculosis campaign allowances	419	300	221	81	62	45	..	..	1,127
Rehabilitation of ex-servicemen	86	98	39	24	30	10	..	16	303
Total	*130,141*	*82,599*	*49,725*	*37,533*	*29,538*	*10,176*	..	*203*	*339,913*
Other health services—									
Medibank—Medical benefits	234,717	140,950	69,397	46,551	35,702	10,634	..	2,305	540,258
Medical benefits, n.e.c.	823	650	64	66	74	65	..	..	1,741
Pharmaceutical benefits for pensioners	49,013	26,765	17,995	10,047	7,609	3,248	39	486	115,202
Pharmaceutical benefits, n.e.c.	45,265	30,528	18,854	9,842	8,185	2,788	279	3,961	119,701
Domiciliary care	2,410	1,830	1,521	913	912	503	..	..	8,089
Total	*332,228*	*200,723*	*107,831*	*67,419*	*52,482*	*17,238*	*318*	*6,752*	*784,991*
Total health	**462,369**	**283,322**	**157,556**	**104,952**	**82,020**	**27,414**	**318**	**6,955**	**1,124,903**

(*a*) State totals for New South Wales and South Australia also include most of the unallocable expenditure on cash benefits to persons resident in the Australian Capital Territory and the Northern Territory respectively.

FEDERAL AUTHORITIES: HEALTH CASH BENEFITS TO PERSONS

($'000)

	1972–73	*1973–74*	*1974–75*	*1975–76*	*1976–77*p
Hospital and clinical services—					
Hospital benefits for pensioners	23,768	24,295	25,187	7,196	21
Medibank—Private hospital daily bed payments	..	..	..	55,263	73,238
Hospital benefits, n.e.c.	82,270	89,488	116,150	103,165	31,102
Nursing home benefits	92,836	112,740	161,593	195,553	234,122
Tuberculosis campaign—allowances	780	740	754	898	1,127
Rehabilitation of ex-servicemen	134	150	201	223	303
Other	..	1	..	..	..
Total	*199,788*	*227,414*	*303,885*	*362,298*	*339,913*
Other health services—					
Medical benefits for pensioners	30,822	35,417	47,800	5,344	..
Medibank—Medical benefits	..	..	..	629,471	540,258
Medical benefits, n.e.c.	160,238	163,449	195,818	80,744	1,741
Pharmaceutical benefits for pensioners	58,139	66,803	80,699	107,334	115,202
Pharmaceutical benefits, n.e.c.	119,493	151,493	181,643	176,509	119,701
Milk for school children	11,781	8,118	58	8	..
Domiciliary care	1,022	6,309	7,112	7,697	8,089
Total	*381,495*	*431,589*	*513,130*	*1,007,107*	*784,991*
Total health	**581,283**	**659,003**	**817,015**	**1,369,405**	**1,124,903**

Tuberculosis

An arrangement between the Commonwealth and the States under which the Commonwealth reimbursed the States for all approved capital expenditure on tuberculosis and for net maintenance expenditure to the extent that it exceeded that for 1947–48 was discontinued from 31 December 1976. The National Tuberculosis Advisory Council, however, has been retained to keep abreast of advances and to advise the Minister for Health and, through him, the State Ministers for Health on the best means of prevention, diagnosis and control of tuberculosis. There are twelve members of the Council, the chairman being the Director-General of the Commonwealth Department of Health.

To reduce the spread of infection the Commonwealth Government pays allowances to persons suffering from infectious tuberculosis so that they may give up work and undergo treatment.

Expenditure by the Commonwealth Government on tuberculosis is set out in the following tables.

COMMONWEALTH GOVERNMENT EXPENDITURE ON TUBERCULOSIS 1976–77

($'000)

State or Territory	*Commonwealth Government reimbursements to States and payments in Territories*		*Cash benefits to persons(b)*	*Total*
	Capital	*Maintenance(a)*		
New South Wales	15	390	317	722
Victoria	..	3,277	229	3,506
Queensland	109	1,253	169	1,531
South Australia	..	498	53	551
Western Australia	..	648	46	694
Tasmania	..	592	35	627
Northern Territory	..	267	9	276
Australian Capital Territory	..	69	4	73
Australia	**125**	**6,995**	**861**	**7,981**

(*a*) Includes administrative costs of $1,065,000 payable from Consolidated Revenue. Final payments to certain States will be made in 1977–78 to meet commitments entered into prior to 31 December 1976. (*b*) Allowances to sufferers.

COMMONWEALTH GOVERNMENT EXPENDITURE ON TUBERCULOSIS

($'000)

Year	*Commonwealth Government reimbursements to States and payments in Territories*		*Cash benefits to persons(b)*	*Total*
	Capital	*Maintenance(a)*		
1972–73	388	11,242	780	12,409
1973–74	441	11,740	716	12,897
1974–75	131	14,051	759	14,940
1975–76	241	11,691	898	12,830
1976–77	125	6,995	861	7,981

(*a*) Includes administrative costs payable from Consolidated Revenue. (*b*) Allowances to sufferers.

Immunisation campaigns

Continuing immunisation programs against poliomyelitis, measles, rubella, diphtheria, tetanus, and whooping cough are maintained in all States and Territories.

Rubella immunisation is limited to females during their reproductive years; mass campaigns are routinely undertaken only on girls aged between 10 and 14 years. Whooping cough immunisation is given only to infants less than 2 years of age.

National health services organisations

The Commonwealth Department of Health Pathology Laboratory Service provides diagnostic and investigational facilities at laboratories situated in Albury, Alice Springs, Bendigo, Cairns, Canberra, Darwin, Hobart, Kalgoorlie, Launceston, Lismore, Port Pirie, Rockhampton, Tamworth, Toowoomba and Townsville. Their primary role is to assist medical practitioners in the diagnosis of illness and disease and to provide facilities for investigations into public health and aspects of preventive medicine. During 1976–77, the laboratories carried out approximately 4.3 million pathology tests and investigations in respect of 1.2 million patient requests.

The Commonwealth Serum Laboratories (CSL) are both Australia's leading centre for the production and supply of biological products for human and veterinary use, and one of Australia's foremost scientific institutes. Their main functions are to produce and sell prescribed biological products used for therapeutic purposes and to ensure the supply of prescribed essential biological products in accordance with national health needs. The functions include biological research and development relating to many kinds of human and veterinary diseases covering the fields of bacteriology, biochemistry, immunology and virology. The laboratories and central administration are located at Parkville, Victoria, with storage and distribution facilities in each capital city.

For several decades, CSL has been Australia's chief supplier of biological medicines, insulins, vaccines, penicillins, human blood fractions, BCG and an increasing range of veterinary biological products needed by Australia's sheep, cattle, pig and poultry industries. It is also well known and respected overseas, and export income forms a significant part of total revenue.

The Laboratories employ more than 1,000 people, including medical officers, veterinarians, bacteriologists, biochemists, physicists, engineers, accountants, laboratory assistants, skilled tradesmen and experienced marketing staff to promote the sale of its products.

The Australian Radiation Laboratory is concerned with research, development and scientific advisory services on the public health hazards in Australia of ionizing radiation, radioactive materials, microwaves and lasers. In 1976–77, free issues of radioisotopes for medical diagnosis and therapy for patients throughout Australia numbered 43,982, the cost of $2,260,906 being met from the National Welfare Fund. Issue of in vitro radiopharmaceuticals in kit form ceased on 1 July 1976. Film badges (to monitor the radiation exposure of people working with radioactive substances) numbering 101,643 were processed.

The National Acoustic Laboratories undertake scientific investigations into hearing and problems associated with noise as it affects individuals, and advise Commonwealth Government Departments and instrumentalities on hearing conservation and the reduction of noise. A free audiological service is provided for pensioners with medical benefit entitlements and their dependants, persons under 21, war widows, Social Security rehabilitees and Veterans Affairs patients. During 1975–76 the number of new cases examined was 37,759 and the number of hearing aids fitted was 29,585. The number of hearing aids on loan at the end of the year was 150,061.

The Ultrasonic Institute conducts research and provides advisory services on the use of ultrasonic radiation in the diagnosis and treatment of disease. The Institute is recognised as a world leader in its field.

Commonwealth Government health advisory organisations

The National Health and Medical Research Council advises the Commonwealth Government and State Governments on all matters of public health legislation and administration, on matters concerning the health of the public, and on medical research. It also advises the Commonwealth Government and State Governments on the merits of reputed cures or methods of treatment which are from time to time brought forward for recognition. The Council advises the Commonwealth Minister for Health on the application of funds from the Medical Research Endowment Fund which provides assistance to Commonwealth Government Departments or to a State Department engaged in medical research; to universities for the purpose of medical research; and to institutions and persons engaged in medical research and in the training of persons in medical research. The Commonwealth Government makes a triennial appropriation for the Fund, that for 1976 to 1978 being $24,000,000. The secretariat for the Council and its Committees is provided by the Commonwealth Department of Health and is located in Canberra.

The School of Public Health and Tropical Medicine located at the University of Sydney provides training in public health, tropical medicine and occupational health for medical graduates and certain undergraduates, in addition to carrying out research and consultative activities in these and allied fields. Costs for the School in 1976–77 were $1,540,252 for administration, and $15,367 for plant and equipment.

The Institute of Child Health is associated with the School of Public Health and Tropical Medicine at the University of Sydney and with the Royal Alexandra Hospital for Children at Camperdown. Its activities include research into medical and social problems of childhood; undergraduate and postgraduate teaching at the University of Sydney, collaboration with other national and international organisations concerned with child health and disease, and the training of United Nations and Colombo Plan Fellows. Costs of the Institute paid by the Commonwealth Government during 1976–77 were $445,436 for administration and $55,793 for plant and equipment.

The Australian Dental Standards Laboratory is concerned with the quality, standards, and research related to dental and other bio-medical materials. The number of samples tested in 1976–77 was 153.

The National Biological Standards Laboratory is responsible for the development of standards for therapeutic goods for human and veterinary use, and for testing such products for compliance with standards to ensure that they are safe, pure, potent and efficacious. Other responsibilities, including the inspection of manufacturing premises and the evaluation of new and modified products, make it the linchpin of a uniform national system of control over therapeutic goods.

The British Pharmacopoeia, the British Pharmaceutical Codex and the British Veterinary Codex are specified as primary standards. In addition, the Minister has powers to make orders setting standards for specific types of goods and general classes of goods which are imported, or the subject of interstate trade, or supplied to the Commonwealth Government. Standards developed by the National Biological Standards Laboratory are submitted to a statutory committee, the Therapeutic Goods Standards Committee, which advises the Minister on their suitability.

The Laboratory, jointly with State officials and the pharmaceutical industry, prepares and revises an Australian Code of Good Manufacturing Practice which is the criterion employed by inspectors for the licensing of pharmaceutical manufacturers.

The Laboratory has sections which deal with viral products, bacterial products, pharmaceutical products, antibiotics and pharmacology. Administrative costs for 1976–77 were $2,573,463 and a further $93,799 was expended on plant and equipment.

The Australian Drug Evaluation Committee makes medical and scientific evaluations both of such goods for therapeutic use as the Minister for Health refers to it for evaluation and of other goods for therapeutic use which, in the opinion of the Committee, should be so evaluated, and advises the Minister for Health as it considers necessary relating to the importation into and the distribution within Australia of goods for therapeutic use that have been the subject of evaluation by the Committee. It has the powers to co-opt and seek advice from specialist medical colleges and associations and from the medical and allied professions, drug manufacturers and other sources. During 1976–77, sixty-four applications for approval to market new drugs and ten applications to extend the indications for use of currently marketed drugs were considered by the Committee. Fifty-two applications were approved, seven rejected and fifteen deferred pending production of further information on safety or efficacy. Under the Committee's control are the Australian Registry of Adverse Reactions to Drugs, which provides an early warning system based on reports of reactions to drugs forwarded voluntarily by medical practitioners; the Adverse Drug Reaction Advisory Committee, which prepares more detailed evaluations of reports and increased feedback to the medical profession; the Vaccines Sub-Committee; the Endocrinology Sub-Committee; the Congential Abnormalities Sub-Committee; the Parenteral Nutrition Sub-Committee; the Anti-Cancer Drugs Sub-Committee; and the National Drug Information Advisory Sub-Committee, recently formed to oversight administrative aspects of and technical input to the proposed National Drug Information Service.

The Therapeutic Goods Advisory Committee considers, and advises the Minister for Health on, any matters relating to standards applicable to goods for therapeutic use and the administration of the Therapeutic Goods Act. *The Therapeutic Goods Standards Committee*, under the same Act, advises the Minister for Health on standards and requirements relating to the labelling and packaging of any such goods.

The National Therapeutic Goods Committee comprises Federal and State representatives. Its function is to make recommendations to the Commonwealth and State Governments on action necessary to bring about co-ordination of legislation and administrative controls on therapeutic goods. Sub-committees have been formed to consider specific matters, notably advertising, registration, a Code of Good Manufacturing Practice, electro-medical devices and standards for disinfectants.

The Hospital and Allied Services Advisory Council was established by the 1970 Australian Health Ministers Conference to provide advice on the co-ordination of matters connected with hospitals and allied services. The Council now consists of representatives of each State Health Department or Commission, the Commonwealth Departments of Health, Social Security and Veterans' Affairs, the Hospitals and Health Services Commission and the Capital Territory Health Commission. The Council is assisted in carrying out its work by several committees, sub-committees and working parties.

The Hospitals and Health Services Commission was established to ascertain health care needs and to make recommendations to the Commonwealth Government concerning health care delivery systems, funds to be allocated for these systems, the education of health personnel, the accreditation of services and financial assistance to be made available to States, Territories, regions, local governments, charitable organisations and other bodies. In addition, the Commission promotes, and participates in planning relating to, health services. The Government, on the recommendation of the Commission, approved grants under the Community Health Program to the States totalling $50,414,152 in 1975–76 and $64,552,000 in 1976–77. Further grants of $4,874,610 in 1975–76 and $4,292,000 in 1976–77 were approved for national secretariats of voluntary organisations and for the Family Medicine Program conducted by the Royal Australian College of General Practitioners.

Under the Hospitals Development Program the Government approved grants of $107.15m in 1975–76, and $108m in 1976–77 to assist the States to provide new hospitals and nursing homes in areas of need and to upgrade and refurbish substandard existing facilities.

A Planning and Research Program is also being implemented by the Commission, and grants of $867,286 in 1975–76 and $1,000,972 in 1976–77 were allocated for this purpose. The Commission's Reports on the Review of the Community Health Program, on the Review of the School of Public Health and Tropical Medicine, on Rural Health in Australia, and on Health Transport Policies for Australia were tabled in Parliament in 1975–76 and 1976–77.

Other Commonwealth Government subsidies and grants to States

Home nursing subsidy scheme

The Home Nursing Subsidy Scheme provides for an annual Commonwealth subsidy to approved home nursing services. Organisations eligible for the subsidy are those which are non-profit making, employ registered nurses, and receive assistance from a State Government or from local government bodies. During 1976–77 subsidies totalling $9.36m were paid to 193 organisations providing home nursing services in the States. Home nursing services in the Northern Territory are provided by the Commonwealth Department of Health, and in the Australian Capital Territory by the Capital Territory Health Commission.

Paramedical services

The States Grants (Paramedical Services) Act 1969 provides for the Commonwealth Government to share on a $1 for $1 basis with participating States the cost of approved paramedical services such as chiropody, occupational therapy, physiotherapy and speech therapy provided wholly or mainly for aged persons in their homes. Matching grant payments during 1976–77 amounted to $550,000.

Commonwealth Government grants to organisations associated with public health

In addition to providing the services mentioned on pages 219–26 the Commonwealth Government gives financial assistance to certain organisations concerned with public health. Examples of organisations included in this category are given in the following text.

The Royal Flying Doctor Service is a non-profit organisation providing medical services in remote areas of Australia. It is distinct from, but co-ordinates with, the Aerial Medical Services operated by the Commonwealth Department of Health in the Northern Territory. The Royal Flying Doctor Service is financed mostly from donations and government contributions. For the triennium ended 30 June 1977, the Commonwealth Government paid grants totalling $2,777,917 towards operational costs, and matching assistance of $919,594 towards an approved program of capital expenditure. In addition, $62,653 was paid in 1976–77 towards the cost of the changeover of radio base stations to single sideband operation. The Service made flights during 1976–77 totalling 4.6 million kilometres and transported 6,564 patients. In the same period medical staff conducted a total of 88,321 consultations and dental treatment was given to 1,340 patients.

The Red Cross Blood Transfusion Service is conducted by the Australian Red Cross Society throughout Australia. The operating costs of the Service in the States are met by the State Governments paying 60 per cent, the Society 5 per cent of net operating costs or 10 per cent of donations, whichever is the less, and the Commonwealth Government meeting the balance. In the Northern Territory the Society contributes to operating costs as it does in the States, and the Commonwealth meets the balance. Approved capital expenditure by the Service in the States is shared on a $1 per $1 basis with the States, while in the Northern Territory it is met by the Commonwealth. Commonwealth Government expenditure for each State and the Northern Territory during 1976–77 was $4,806,874, made up as follows: New South Wales, $1,485,556; Victoria, $1,355,661; Queensland, $685,592; South Australia, $511,343; Western Australia, $459,263; Tasmania, $112,959; and Northern Territory, $196,500.

The National Heart Foundation of Australia is a private national organisation established to promote research in cardiovascular disease, to rehabilitate heart sufferers and to foster the dissemination of information about heart diseases. The Foundation now has an annual income from public donations of over $1,800,000. Expenditure in 1976 came to $2,115.680, of which almost half was devoted to supporting research into cardiovascular disease. Such research is the single most important function of the Foundation, and from its inception to the end of 1976 it had allocated well over $7.5 million for: grants-in-aid towards research in university departments, hospitals and research institutes; research fellowships tenable in Australia and overseas; and overseas travel grants for study purposes.

The World Health Organisation (WHO) is a specialised agency of the United Nations having as its objective the attainment by all peoples of the highest level of health. Australia is assigned to the Western Pacific Region, the headquarters of which is at Manila, and is represented annually at both the World Health Assembly in Geneva and the Regional Committee Meeting in Manila. Australia's contribution to WHO for 1976–77 was $A1,700,000.

The International Agency for Research on Cancer was established in 1965 within the framework of the World Health Organisation. The headquarters of the Agency are located in Lyon, France. The objectives and functions of the Agency are to provide for planning, promoting and developing research in all phases of the causation, treatment and prevention of cancer. Australia's contribution to the IARC for 1976–77 was $A266,295.

STATE GOVERNMENT ACTIVITIES

(Includes activities of the Commonwealth Government in the Northern Territory and the Australian Capital Territory)

Public health legislation and administration

For a comprehensive account of the administration of health services in each State, the Northern Territory and the Australian Capital Territory, *see* the annual reports of the respective Departments of Health. For details of legislation and administrative changes in previous years *see* earlier issues of the Year Book. The following paragraphs refer briefly to recent developments.

In New South Wales:

The *Health Commission and Other Acts (Amendment) Act* 1975 empowers the Health Commission to borrow money and to employ servants to man health services.

The *Radioactive Substance (Amendment) Act* 1976 contains provisions to regulate the sale of irradiating apparatus except under, and in accordance with, the provisions of the *Radioactive Substances Act* 1957.

The *Ambulance Services Act* 1976 relates to the provision of ambulance services in New South Wales by the Health Commission.

The *Health Commission (Amendment) Act* 1976 amends the *Health Commission Act* 1972, in connection with the acquisition and disposal of property and for the purpose of defining ambulance service.

The *Poisons (Amendment) Act* 1977 amends the *Poisons Act* 1966 to confer additional power on the Governor to make regulations and to provide that the supply of certain substances includes the sale of those substances.

The *Public Hospitals (Amendment) Act* 1976 amends the *Public Hospitals Act* 1929—

(a) in relation to the incorporation of hospitals, the amalgamation of incorporated hospitals and the election and appointment of directors of incorporated hospitals;

(b) to enable the granting, amendment and revocation of privileges in respect of medical practitioners and dentists who wish to perform work at hospitals; and

(c) to confer rights of appeal on medical practitioners and dentists against certain decisions of hospital boards and recommendations of credentials committees.

The *Venereal Diseases (Amendment) Act* 1977 amends the *Venereal Diseases Act* 1918 with respect to the giving of advice, directions and information by medical practitioners to the parents or guardians or other persons in charge of children and young persons who are suffering from venereal disease.

The *Poisons (Regulations) Amendment Act* 1977 removes doubt as to the retrospective validation of certain regulations purporting to have been made under the *Poisons Act* 1966.

The *Poisons (Further Amendment) Act* 1977 prohibits the cultivation of certain plants, authorises the Director-General of Agriculture to destroy any such plants in certain circumstances and increases the penalties for certain offences relating to drugs of addiction and prohibited drugs.

The *Local Government (Noxious Plants) Amendment Act* 1977 amends the *Local Government Act* 1919 with respect to the eradication of noxious plants that are prohibited pursuant to the *Poisons Act* 1966.

In Queensland:

The *Hospitals Act Amendment Act* 1976 contains provisions relating to hospital administration, including alteration of the title "Matron" to "Nursing Superintendent"; the creation of the Redcliffe Hospitals Board as a separate entity; and the Mater Public Hospital being treated similarly to State public hospitals in funding and accounting purposes for Medibank cost-sharing arrangements.

The *Medical Act Amendment Act* 1976 contains, among others, amendments whereby the Board may make by-laws regulating and controlling "medical call services"; the Board may erase the name of a medical practitioner from the register if his name has been removed from a register maintained by another authority; and the Board may determine the medical fitness of medical practitioners to continue to practise medicine.

The *Medical Act and Other Acts (Administration) Act Amendment Act* 1976 provided authority for the appointment of Inspectors for the then existing seven Professional Boards and deleted the requirement that the registers of the seven Professional Boards be published in the Government Gazette.

The *Medical Act and Other Acts (Administration) Act Amendment Act* 1977 provided for legislation which applies to the existing seven Professional Boards to be extended to include the Psychologists Board of Queensland.

The *Medical Act and Other Acts (Administration) Act Amendment Act* 1976 (*No.* 2) substitutes the Pharmacy Board of Queensland constituted under the *Pharmacy Act* 1976 and the Nurses Registration Board of Queensland constituted under the *Nursing Act* 1976 in lieu of the Pharmacy Board and Nurses Board constituted under repealed Acts.

The *Health Act Amendment Act* 1976 provides for right of appeal against conviction for drug offences to be made to the Court of Criminal Appeal and not to the District Court or Full Court. Provision is also made for a court to presume that if a substance bears an inscription required under legislation or if a container is labelled according to the legislation, the substance or article is of the nature or composition as indicated on the inscription or label.

The *Health Act Amendment Act* 1976 (*No.* 2) primarily provides for increased penalties for trafficking in dangerous drugs and prohibited plants, extends powers to detain, search, seize and arrest, and includes a new Division of the Act relative to pest control operations.

The *Drugs Standard Adopting Act* 1976 repeals The *British Pharmacopoeia Adopting Act* 1898 which was outdated and provides for the adoption and establishment of standards for drugs in Queensland.

The *Physiotherapists Act Amendment Act* 1976 provides amended qualifications for registration, schedules of overseas qualifications recognised for registration in Australia, removal of the name of a physiotherapist from the register where the person's name has been removed from the register maintained by any other authority, appointment of a Committee of Assessors to determine the medical fitness of a person to practise physiotherapy and increased penalty provisions.

The *Nursing Studies Act* 1976 provides for a Board of Nursing Studies which is charged with the responsibility of training and educating nurses in Queensland. The Board is responsible for recommending accreditation of Schools of Nursing within Colleges of Advanced Education to conduct nursing education programmes and approving the content of the proposed courses. The Board will lay down minimum requirements to all educating authorities for nurse education.

The *Nursing Act* 1976 provides for the reconstitution of the Nurses Board of Queensland as the Nurses Registration Board of Queensland. This new Board is charged with the responsibility for the qualifications and registration of nurses and enrolment of persons connected with the nursing profession and with the regulation of the practice of nursing.

The *Pharmacy Act* 1976 provides for the registration of pharmacists to ensure that persons wishing to practise as pharmacists are adequately qualified and that the practice of pharmacy is of a high standard.

The *Psychologists Act* 1977 provides for the constitution of the Psychologists Board of Queensland, the registration of psychologists and the regulation of the practice of psychology by psychologists.

In South Australia:

The *Alcohol and Drug Addicts (Treatment) Act Amendment Act* 1976 establishes 'sobering-up' centres to detain persons believed to be under the influence of alcohol or some other drug.

The *Health Act Amendment Act* 1976 makes it mandatory for all cases of cancer to be reported to the Central Board of Health.

The *South Australian Health Commission Act* 1975–76 establishes a Health Commission to provide for the administration of hospitals and health services in South Australia.

In Western Australia:

The *Health Act* 1976 changes the Pesticides Advisory Committee, provides for the laboratory notification of cases of venereal disease, and provides for the Minister for Health to acquire or lease land for specific purposes.

The *Medical Act* 1976 basically relates to changes in fees for registration, for the restoration of names to the register and to limiting registration to medical graduates resident in Western Australia.

The *Nurses Act* 1976 provides for the inclusion on the Nurses Board of two nursing aides.

The *Occupational Therapists Act* 1976 amends the constitution of the Occupational Therapists Board and the requirements for registration.

The *Pharmacy Act* 1977 deletes reference to a minimum age for registration.

In the Northern Territory:

The *Radiographers Ordinance* 1976 provides for registration of radiographers.

The *Hospitals and Medical Services Ordinance* 1976 provides for charges to be prescribed for privately insured patients. (Hospitals and Medical Services (Charges) Regulations prescribed such charges in 1976, and increased charges for in-patients covered by workers compensation and third party insurance in 1977.)

The *Medical Practitioners Registration Ordinance* 1976 provides for establishment of a Disciplinary Tribunal and conditional registration of practitioners.

The *Pharmacy Ordinance* 1977 provides for temporary absence of pharmacists from pharmacies.

The *Nursing Ordinance* 1975 provides for enrolment and training of Mothercraft Nurses and enlargement of the Nurses Board.

In the Australian Capital Territory:

The *Public Health (Prohibited Drugs) (Amendment) Ordinance* 1977 authorises the possession of prohibited drugs for research purposes.

The *Venereal Diseases (Amendment) Ordinance* 1977 introduces a new definition of venereal disease and requires pathologists to notify the Medical Officer of Health of positive tests.

The *Termination of Pregnancy (Temporary Provisions) Ordinance (No.* 2) 1977 prohibits treatment leading to the termination of pregnancy at other than a public hospital.

The *Physiotherapists Registration Ordinance* 1977 provides for the registration of physiotherapists and controls the practice of physiotherapy.

Supervision and care of infant life

Because the health of mothers and infants depends largely on pre-natal care as well as after-care, government, local government and private organisations provide instruction and treatment for mothers before and after confinement. The health and well-being of mother and child are looked after by infant welfare centres, baby clinics, crèches, etc.

In all States, Acts have been passed with the object of supervising the conditions of infant life and reducing the rate of mortality. Stringent conditions regulate the adopting, nursing and maintaining of children placed in foster-homes by private persons.

Under the provisions of the *Social Services Act* 1947, maternity allowances provide financial assistance towards the expenses associated with the birth of children. Information about maternity allowances is given in Chapter 9, Social Security and Welfare.

Nursing activities

Several State Governments maintain centres which provide advice and treatment for mothers and children. In addition, subsidies are granted to various associations engaged in welfare work.

The following table shows particulars of infant welfare centres in States where they can be separately identified. In other areas, infant welfare services have been largely absorbed into the more general Community Health Services.

INFANT WELFARE CENTRES

	Qld	*S.A.*	*W.A.*	*Tas.*	*A.C.T.*
	1975–76	1975–76	1976	1976–77	1976–77
Number of centres(*a*)	299	306	114	101	63
Attendances at centres—					
Pre-natal	9,246	6,090	11,224	2,835	n.a.
Post-natal—Number of children	527,990	288,260	274,535	140,365	85,470
Nurses' home-visits(*b*)	4,911	35,681	40,100	52,243	19,208
Nurses hospital-visits(*c*)	39,297	n.a.	19,203	9,703	74

(*a*) At end of year shown. (*b*) Pre- and post-natal. (*c*) Post-natal.

Medical and dental inspection of school children

Medical and dental inspection of school children is carried out in all States under the control of State Health Departments, in the Northern Territory under the control of the Commonwealth Department of Health and in the Australian Capital Territory by the Capital Territory Health Commission. The school health services are available to both government and non-government schools in metropolitan areas, larger country towns and, in most States, to children attending schools in more remote country areas.

The aim of the school medical services is to medically examine all children at least once during their school careers, usually on entry into primary school. Review examinations or, in some States, tests of vision and hearing by school nurses, are conducted in upper-primary and lower-secondary grades. Parents or guardians are notified of any departure from normal health and advised to seek further attention if necessary.

The aim of the school dental services is to examine and give regular dental treatment to children. Usually, acceptance for treatment is limited to children in primary schools. Some school children are treated at hospital dental clinics. Aboriginal missions and orphanages are also visited by school dentists. The consent of a parent or guardian is necessary before treatment can be given. In some States, priority is given to children who live in areas beyond the easy reach of other dental services. Treatment in remote areas is facilitated by the use of travelling dental clinics.

As in the case of infant welfare centres, it is not now possible to obtain separate figures of school health services in all States and Territories but, in those areas for which figures are available, the number of medical examinations -and particularly dental examinations and treatments—has exceeded those shown in Year Book No. 61, page 464.

HOSPITALS AND NOTIFIABLE DISEASES

Public and Private Hospitals and Nursing Homes

The ABS no longer publishes Australia-wide details of these institutions although some limited State information is published by State offices of the ABS. Information is also published in the Annual Reports of the Department of Social Security.

Repatriation hospitals

The medical care of eligible veterans and dependants of deceased veterans is a major function of the Department of Veterans' Affairs, which provides a comprehensive service.

In-patient treatment is provided at the six Repatriation General Hospitals (one in each State) and at seven auxiliary hospitals and sanatoria. In-patient treatment may also be provided in country hospitals at the Department's expense in certain circumstances. Mental patients requiring custodial care are, by agreement with the State Governments, accommodated at the expense of the Department in mental hospitals administered by the State authorities.

Details of patients, staff and expenditure on Repatriation institutions and other medical services are given in Chapter 9, Social Security and Welfare.

Hansenide hospitals

There are three isolation hospitals in Australia for the care and treatment of persons suffering from Hansens' disease (leprosy). The numbers of isolation patients at these hospitals in the year ended 31 December 1976 were: Little Bay, New South Wales, 32; Fairfield, Victoria, 9; and Derby, Western Australia, 41.

In Queensland, leprosy sufferers are treated in a special isolation ward at Princess Alexandra Hospital (Brisbane), at the leprosy annex of the Palm Island Hospital and at a number of other hospitals which do not have facilities set aside specifically for leprosy patients. There were no isolation patients in Queensland during 1976.

In the Northern Territory at 31 December 1976 there were approximately 20 in-patients for the care and repair of deformity as distinct from the purpose of isolation.

Mental health institutions

The presentation of meaningful statistics of mental health services has become increasingly difficult because of changes in recent years in the institutions and services for the care of mental patients. The emphasis has shifted from institutions for care of patients certified insane to a range of mental health services provided for in-patients and out-patients at psychiatric hospitals, admission and reception centres, day hospitals, out-patient clinics, training centres, homes for the mentally retarded and geriatric patients, psychiatric units in general hospitals, and the like. Numbers of institutions, beds available, staff and patients treated at locations catering only for the mentally ill in 1973–74 were published in Year Book No. 61, page 465. More recent figures indicate that fewer patients were treated as in-patients in nearly every State, but this should not be considered as an indication of improved mental health; it is rather a more advanced method of treatment, allowing patients greater contact with the outside world.

In recent years, in-patient treatment facilities have been opened in the Australian Capital Territory, particularly for mentally retarded children. In the past, such cases were mostly treated in State institutions elsewhere, and the new development allows much greater contact between patients and other members of the family.

Hospital Morbidity Statistics

A major factor in the cost of health care in Australia is hospital treatment of patients. Attempts to measure the number of in-patients treated and bed-days involved for each disease or injury have been going on for some years, but as coverage is incomplete it is not yet possible to present national statistics. All hospitals, both public and private, are included in Queensland and Western Australia; and all public hospitals in the Australian Capital Territory, the Northern Territory and, from 1 July 1976, New South Wales. Figures for Queensland, Western Australia and Tasmania are published in *Patients Treated in Hospitals, 1975* (4303.3), *Hospital In-patient Statistics, 1975* (4301.5) and *Hospital Morbidity, 1975* (4301.6) respectively.

An examination of Western Australian figures for 1975 indicates that the largest numbers of patients were treated for injury (12 per cent), respiratory diseases (11.5 per cent) and maternity (11 per cent), but, in terms of hospital bed-days, the greatest occupancy rate was caused by diseases of the circulatory system (11.6 per cent) followed by injury (11.5 per cent) and maternity (10.7 per cent).

Notifiable diseases

Methods of prevention and control

Provision exists in the Health Acts of all States for the compulsory notification of certain infectious and other diseases and for the application of preventive measures. When any such disease occurs the local authority must be notified at once, and in some States notification must be made also to the Health Department.

As a rule, the local authorities are required to report from time to time to the Central Board of Health in each State on the health, cleanliness and general sanitary state of their several districts and on the appearance of certain diseases. Regulations provide for the disinfection and cleansing of premises and for the disinfection or destruction of bedding, clothing or other articles which have been exposed to infection. Regulations also provide that persons suspected to be suffering from, or to be carriers of, infectious disease must submit to clinical and laboratory examination. Persons suffering from certain diseases, for example smallpox, are detained in isolation.

Notifiable diseases and cases notified, 1976

The following table shows, by State and Territory, the number of cases notified in 1976 for those diseases notifiable in all States and Territories. The table does not include all diseases which are notifiable in a State or Territory. Factors such as the following affect both the completeness of the figures and the comparability from State to State and from year to year: availability of medical and diagnostic services; varying degrees of attention to notification of diseases; and enforcement and follow-up of notifications by Health Departments.

NOTIFIABLE DISEASES(*a*): NUMBER OF CASES NOTIFIED, 1976

Disease	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Brucellosis	12	24	7	4	..	..	..	..	47
Diphtheria	1	..	2	..	..	..	..	..	3
Gonorrhoea	3,535	1,941	1,492	1,855	1,932	165	515	44	11,479
Hansen's disease (leprosy)	..	8	2	1	20	2	6	..	39
Hepatitis, infective	749	832	360	235	272	312	295	12	3,067
Hepatitis, serum	162	144	9	100	12	..	2	13	442
Hydatid	4	2	..	1	..	3	..	..	10
Leptospirosis	..	8	41	6	1	4	..	..	60
Malaria	76	46	60	22	14	1	20	14	253
Ornithosis	..	..	..	2	..	..	..	..	2
Salmonella	190	62	21	234	166	30	71	41	815
Syphillis	645	178	529	484	661	2	679	4	3,182
Tetanus	1	1	..	1	..	..	..	..	3
Tuberculosis	582	315	244	99	110	33	34	19	1,436
Typhoid fever	11	8	1	2	..	..	..	..	22
Typhus (all forms)	..	..	1	..	..	..	..	..	1

(*a*) No cases of anthrax, cholera, plague, poliomyelitis, smallpox or yellow fever were notified.

DEATHS

Causes of Death and Perinatal Deaths

Causes of death in Australia are currently classified according to the Eighth Revision of the International Classification of Diseases (ICD) produced by the World Health Organisation. Detailed statistics are published in the bulletin *Causes of Death* (3303.0), and only broad groupings of causes of death are reproduced in this Year Book. Figures shown relate to the year 1975.

The major causes of death in the community are heart disease (accounting for 35.6 per cent), malignant neoplasms (cancers) (18.7 per cent), cerebrovascular disease (strokes) (14.1 per cent) and external injuries (8.0 per cent). Infectious diseases have caused few deaths in Australia in recent years, largely as a result of quarantine activities, immunisation campaigns and similar measures. In 1975, only 0.6 per cent of all deaths were due to such diseases.

As can be seen from the following table, the relative importance of groups of causes of death varies with age. Heart disease, cancer and strokes are predominant in middle and old age. Accidents, particularly those involving motor vehicles, are the primary cause of death in childhood and early adulthood. Most deaths (70 per cent) of infants occur within 28 days after birth and are due to congenital anomalies, birth injury or other conditions present from birth.

PRINCIPAL CAUSES OF DEATH IN VARIOUS AGE GROUPS, 1975

Age group and causes of death	*Number*			*Per 100,000 of population*			*Percentage of total deaths*		
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
Under 1 year—									
Other causes of perinatal mortality	731	518	1,249	599	448	526	37.4	37.7	37.6
Congenital anomalies	413	329	742	338	285	312	21.2	24.0	22.3
Birth injury, difficult labour and other anoxic and hypoxic conditions	265	156	421	217	135	177	13.6	11.4	12.7
Symptoms and ill-defined conditions	197	138	335	161	119	141	10.1	10.1	10.1
1–4 years—									
All other accidents	132	68	200	25	14	20	29.6	20.4	25.7
Motor vehicle accidents	86	48	134	16	10	13	19.3	14.4	17.2
Congenital anomalies	57	53	110	11	11	11	12.8	15.9	14.1
All other diseases	39	35	74	7	7	7	8.7	10.5	9.5
5–14 years—									
Motor vehicle accidents	141	80	221	11	7	9	29.2	26.5	28.2
All other accidents	115	41	156	9	3	6	23.8	13.6	19.9
Malignant neoplasms	71	63	134	6	5	5	14.7	20.9	17.1
All other diseases	47	44	91	4	4	4	9.7	14.6	11.6
15–24 years—									
Motor vehicle accidents	1,147	237	1,384	95	21	59	58.5	39.4	54.0
All other accidents	241	51	292	20	4	12	12.3	8.5	11.4
Suicide and self-inflicted injuries	166	46	212	14	4	9	8.5	7.7	8.3
Malignant neoplasms	106	79	185	9	7	8	5.4	13.1	7.2
25–34 years—									
Motor vehicle accidents	435	95	530	42	10	26	29.7	14.8	25.2
Malignant neoplasms	173	134	307	17	14	15	11.8	20.9	14.6
Suicide and self-inflicted injuries	213	79	292	20	8	14	14.5	12.3	13.9
All other accidents	232	32	264	22	3	13	15.8	5.0	12.5
35–44 years—									
Malignant neoplasms	339	393	732	43	53	48	15.7	31.4	21.5
Ischaemic heart disease	488	130	618	62	18	40	22.7	10.4	18.2
Motor vehicle accidents	297	75	372	38	10	24	13.8	6.0	10.9
All other diseases	159	139	298	20	19	20	7.4	11.1	8.8
45–54 years—									
Ischaemic heart disease	2,261	562	2,823	290	75	184	37.0	18.1	30.6
Malignant neoplasms	1,334	1,144	2,478	171	152	162	21.8	36.9	26.9
Cerebrovascular disease	402	356	758	52	47	50	6.6	11.5	8.2
All other diseases	438	247	685	56	33	45	7.2	8.0	7.4
55–64 years—									
Ischaemic heart disease	4,577	1,535	6,112	806	258	526	40.1	25.9	35.2
Malignant neoplasms	2,743	1,936	4,679	483	326	403	24.1	32.6	27.0
Cerebrovascular disease	941	718	1,659	166	121	143	8.3	12.1	9.6
All other diseases	710	490	1,200	125	82	103	6.2	8.3	6.9
65–74 years—									
Ischaemic heart disease	6,324	3,463	9,787	1,860	844	1,305	38.8	34.0	36.9
Malignant neoplasms	3,724	2,223	5,947	1,095	542	793	22.8	21.8	22.4
Cerebrovascular disease	1,823	1,771	3,594	536	432	479	11.2	17.4	13.6
All other diseases	1,137	848	1,985	334	207	265	7.0	8.3	7.5
75 years and over—									
Ischaemic heart disease	5,893	7,403	13,296	4,154	2,814	3,283	32.0	30.2	30.9
Cerebrovascular disease	2,904	6,076	8,980	2,047	2,309	2,217	15.8	24.7	20.9
Malignant neoplasms	2,976	2,836	5,812	2,098	1,078	1,435	16.1	11.6	13.5
All other diseases	1,875	2,765	4,640	1,322	1,051	1,146	10.2	11.3	10.8

Perinatal deaths

Since deaths within the first four weeks of life (neonatal deaths) are mainly due to conditions originating before or during birth, and the same conditions can cause foetal death (stillbirth), special tabulations are prepared combining the two. These are termed 'perinatal deaths' and include all children born dead after the twentieth week of gestation or weighing 400 grams or more at delivery and all live-born children who die within 28 days after birth. The following table shows the number of foetal, neonatal and perinatal deaths from the major groups of causes in 1975; further details are published in *Perinatal Deaths* (3304.0).

Within the largest group, 'Other complications of pregnancy and childbirth', the main individual causes were maternal incompetent cervix (5.3 per cent of all perinatal deaths) and multiple births (5.2 per cent). Placental conditions were responsible for 17.9 per cent, and congenital anomalies for 16.9 per cent.

PERINATAL DEATHS BY CAUSE, 1975

	Number of deaths			*Rate*		
Cause of death	*Foetal*	*Neonatal*	*Perinatal*	*Foetal(a)*	*Neonatal (b)*	*Perinatal (a)*
Chronic circulatory and genito-urinary disease in mother .	39	14	53	0.2	0.1	0.2
Other maternal conditions unrelated to pregnancy . .	135	68	203	0.6	0.3	0.9
Toxaemias of pregnancy .	210	92	302	0.9	0.4	1.3
Maternal ante- and intra-partum infection . .	18	18	36	0.1	0.1	0.2
Difficult labour . . .	72	84	156	0.3	0.4	0.7
Other complications of pregnancy and childbirth . .	344	513	857	1.5	2.2	3.6
Conditions of placenta . .	591	260	851	2.5	1.1	3.6
Conditions of umbilical cord .	227	31	258	1.0	0.1	1.1
Birth injury without mention of cause	6	18	24	..	0.1	0.1
Haemolytic disease of newborn	50	32	82	0.2	0.1	0.3
Anoxic and hypoxic conditions not elsewhere classified .	158	313	471	0.7	1.3	2.0
Other conditions of foetus and newborn	266	214	480	1.1	0.9	2.0
Congenital anomalies . .	287	517	804	1.2	2.2	3.4
Infections of foetus and newborn	1	52	53	..	0.2	0.2
Other diseases of foetus and newborn	10	95	105	..	0.4	0.4
External causes of injury to newborn	..	9	9	..	..	..
All causes . . .	**2,414**	2,330	4,744	10.3	10.0	20.2

(*a*) Per 1,000 total births (live and dead). (b) Per 1,000 live births.

The perinatal death rate in 1975 was 20.15 per 1,000 total births, compared with 23.37 per 1,000 births in 1972 when the present definition was first adopted. Prior to 1972, stillbirths comprised only those of at least 28 weeks gestation but, even on this limited basis, the perinatal death rate was 24.8 per 1,000 births in 1965; so it is obvious there has been considerable improvement over the last ten years.

Cremation

The first crematorium in Australia was opened in South Australia in 1903. At 31 December 1976 there were thirty-three crematoria in Australia, situated as follows: New South Wales, 16; Victoria, 4; Queensland, 6; South Australia, 2; Western Australia, 2; Tasmania, 2; Australian Capital Territory, 1. There is no crematorium in the Northern Territory. The number of cremations carried out in 1975 was 47,976 (44.0 per cent of all deaths); in 1976 it was 50,587 (44.9 per cent of all deaths).

CHAPTER 11

LAW AND ORDER

Law and order throughout Australia are matters for Federal, State and Territorial governments and authorities.

This chapter provides information about the Federal courts structure and Federal matters including bankruptcy, patents and design and copyright; summary details of police strength; statistics of selected crime reported to or becoming known to police; drug offences which are reported on a national basis; and convicted prisoners.

Detailed information about State and Territorial police, courts, prisons and other law and order functions are provided in State Year Books and statistical bulletins, and in annual and other reports of the relevant authorities.

Previously, this chapter also included information about aspects of Public Safety such as details of fire brigade and ambulance services. However, as this information is provided in State Year Books and statistical bulletins and in reports of the relevant authorities, it has not been included in this edition of Year Book Australia.

Federal Courts

The judicial power of the Commonwealth is vested in the High Court of Australia, in the federal courts created by Parliament and in the State courts invested by Parliament with federal jurisdiction. The nature and extent of the judicial powers of the Commonwealth are prescribed by Chapter III of the Australian Constitution. (The Constitution is included in Chapter 1 of this Year Book.)

High Court of Australia

The High Court consists of a Chief Justice and six other Justices and has its principal seat in Sydney. However, sittings are held in every State capital as the need arises.

The new headquarters of the High Court are being built in Canberra and the opening is scheduled for 1980.

The Constitution itself confers original jurisdiction on the High Court in all matters:

(i) arising under any treaty;
(ii) affecting consuls or other representatives of other countries;
(iii) in which the Commonwealth, or a person suing or being sued on behalf of the Commonwealth, is a party;
(iv) between States, or between residents of different States, or between a State and a resident of another State;
(v) in which a writ of mandamus or prohibition, or an injunction is sought against an officer of the Commonwealth.

In addition, the Parliament may, under the Constitution, confer additional original jurisdiction on the High Court in certain classes of matters. The Court currently has original jurisdiction in all matters arising under the Constitution or involving its interpretation, in trials of indictable offences against the laws of the Commonwealth, and in respect of certain other matters specified in various laws made by the Parliament.

The High Court's jurisdiction is made exclusive of the jurisdiction of State Courts in:

(i) matters arising directly under any treaty;
(ii) suits between States or between persons suing or being sued on behalf of different States, or between a State and a person suing or being sued on behalf of another State;
(iii) suits by the Commonwealth or any person suing on behalf of the Commonwealth against a State, or any person being sued on behalf of a State;
(iv) suits by a State, or any person suing on behalf of a State against the Commonwealth or any person being sued on behalf of the Commonwealth;
(v) matters in which a writ of mandamus or prohibition is sought against an officer of the Commonwealth or a federal court.

The exclusive jurisdiction no longer includes matters involving the limits inter se of the constitutional powers of the Commonwealth and those of the States. Where the High Court has concurrent jurisdiction it may remit a matter commenced in the High Court to a court of concurrent jurisdiction and remove a matter commenced in another such court into the High Court.

Under the Constitution the High Court has jurisdiction, with such exceptions and subject to such regulations as the Parliament prescribes, to hear and determine appeals from all judgments, decrees, orders, and sentences of:

(i) any Justice or Justices exercising the original jurisdiction of the High Court,
(ii) any other federal court or court exercising federal jurisdiction, and
(iii) the Supreme Court or other court of any State from which appeal lay to the Privy Council at the establishment of the Commonwealth.

Subject to the exception mentioned below, an appeal may be brought as of right from a final judgment of a Full Court of a State Supreme Court where the interpretation of the Constitution is involved; from judgments for the sum of $20,000 or upwards; and from judgments in any proceedings in which the matter in issue amounts to or is of the value of $20,000 or upwards or which involve a claim, demand or question relating to any property or civil right amounting to or of the value of $20,000 or upwards. The exception to the generality of this statement is that an appeal on a ground relating to quantum of damages for death or personal injury lies only with special leave of the High Court. In all other cases in which the Court has appellate jurisdiction, appeals lie only by special leave of the Court.

Appeal to the Privy Council

In 1968 the Commonwealth Parliament passed an Act, which came into operation on 1 September 1968, restricting appeals to the Privy Council. Under the Act, no appeal can be taken to the Privy Council from a judgment of the Supreme Court of any Territory or a federal court other than the High Court.

Until 1975, special leave of the Privy Council to appeal from the High Court could be sought only in matters that came to the High Court on appeal from the Supreme Court of a State exercising jurisdiction not derived from Commonwealth legislation, and which did not raise in the High Court any question of the application or interpretation of the Commonwealth Constitution, or of Commonwealth or Territory legislation. In 1975 the right to apply for special leave in these cases was removed. An exception to the generality of the foregoing is that under the Constitution an appeal lies to the Privy Council in cases involving the powers of the Commonwealth vis-a-vis the States if the High Court certifies that the question is one that ought to be determined by the Privy Council.

Federal Court of Australia

The Federal Court of Australia was created in 1976 and commenced to exercise jurisdiction on 1 February 1977.

For the purposes of its organisation and business, the Federal Court of Australia consists of two Divisions: an Industrial Division and a General Division. Matters arising under the *Conciliation and Arbitration Act* 1904 and under the *Stevedoring Industry Act* 1956 are dealt with in the Industrial Division. All other matters are dealt with in the General Division of the Court. The Federal Court of Australia sits as required in each State and in the Australian Capital Territory and the Northern Territory.

The *Federal Court of Australia Act* 1976 provides that the Court has such original jurisdiction as is invested in it by laws made by the Commonwealth Parliament.

In respect of matters the hearing of which commenced on or after 1 February 1977, the Court's original jurisdiction includes that formerly exercised by the Federal Court of Bankruptcy and the Australian Industrial Court. Further, original jurisdiction has been conferred by a number of Acts, the most significant being the *Federal Court of Australia (Consequential Provisions) Act* 1976.

The Federal Court of Australia has appellate jurisdiction with respect to judgments of the Court constituted by a single judge; judgments of the Supreme Courts of the Territories; and, in certain circumstances provided for by legislation, with respect to judgments of State courts other than those of the Full Court of a State Supreme Court (e.g. *Patents Act* 1966, *Trade Marks Act*, *Bankruptcy Act*, *Income Tax Assessment Act* 1936).

Australian Industrial Court and Federal Court of Bankruptcy

The hearing of matters which had commenced in these courts at 1 February 1977 continues to be dealt with by these courts. Subject to this, the jurisdiction formerly exercised by these courts is now vested in the Federal Court of Australia and each of the courts is to be abolished when there ceases to be a person holding office as a Judge of the Court.

Family Law Act

The *Family Law Act* 1975 began operation on 5 January 1976. It introduced a new law dealing with human problems in marriage, viz. the custody and welfare of the children, divorce, maintenance and the split up of property of the marriage.

The law is administered by the Family Court of Australia and by certain other courts in the States and Territories. A State Family Court has been established in Western Australia to administer family law in that State.

Under the new law, great emphasis is placed on the counselling services available through the family courts to persons involved in proceedings and to any persons who have encountered marriage problems. It is not necessary to start proceedings to make use of these services.

Under the *Family Law Act*, there is only one ground for divorce—that of irretrievable breakdown of a marriage. Irretrievable breakdown of a marriage is established under the law if the husband and wife have separated and have lived apart from each other for 12 months and there is no reasonable likelihood of reconciliation. The main change made by the Act is that fault is no longer taken into account as a ground for divorce.

Until the *Commonwealth Matrimonial Causes Act* 1959 came into operation, each State was primarily responsible for legislation relating to matrimonial causes, and the law varied from State to State. The Commonwealth *Matrimonial Causes Act* came into force on 1 February 1961 and established uniform grounds throughout the Commonwealth for the termination of marriage. The Act displaced corresponding State law, but vested jurisdiction in existing State and territorial courts.

Under the *Matrimonial Causes Act* a decree for dissolution of marriage could be granted on one or more of fourteen grounds, including adultery, desertion, separation for five years in certain circumstances, cruelty, drunkenness and failure to comply with a restitution order. This Act was repealed by the *Family Law Act*.

The Family Court of Australia

Applications can be made to the Family Court of Australia for custody and maintenance even if a divorce is not sought. People may approach the Court for counselling (and help) with regard to their marital problems whether or not they are contemplating proceedings for divorce or other relief.

The judges of the Family Court are chosen because of their suitability to deal with matters of family law by reason of their training, experience and personality. They do not wear wigs and gowns and have a competent back-up staff attached to the Court to assist them.

In dealing with a marriage problem, the Family Court is guided by the following principles:

- the need to preserve and protect the institution of marriage as the union of a man and a woman to the exclusion of all others voluntarily entered into for life;
- the need to give the widest possible protection and assistance to the family as the natural and fundamental group unit of society, particularly while it is responsible for the care and education of dependent children;
- the need to protect the rights of children and to promote their welfare;
- the means available for assisting parties to a marriage to consider reconciliation or the improvement of their relationship to each other and to the children of the marriage.

The same principles apply to all courts exercising jurisdiction under the *Family Law Act*. Proceedings under the Act in the Family Court are heard in private, and no publicity in newspapers or elsewhere about any proceedings under the Act is permitted.

Counselling

The Family Court aims to be a 'helping' court. A principal Director of Court Counselling and a staff of court counsellors are attached to the Court to help parties sort out their problems. Their help is available to people who are not even contemplating divorce or other proceedings, but who may need counselling assistance. These services complement those already provided by voluntary marriage counselling agencies. People may approach the Court counselling service directly—in person, in writing or by telephone—or through a legal advisor.

Children

The Court has the special task of protecting and promoting the welfare and rights of dependent children. The paramount consideration guiding the Court in all custody proceedings is the welfare of the child. Further, a divorce decree will not become effective unless the Court is satisfied that proper arrangements have been made by parties for the welfare of their children.

A feature of the new law is that, in the absence of any court order, both parents of a child have joint custody of the child as a matter of law. However, one parent can ask a court for sole custody of a child. In disputes over custody, the child may be separately represented. The wishes of children over 14 in such disputes are given special consideration.

Maintenance

The right to maintenance under the new Act is based on the needs of the party seeking it and the ability of the other party to pay. There are specific matters for the Court to consider when it is dealing with maintenance applications. These include:

- the age and state of health of each of the parties;
- the income and financial resources of each of the parties and their financial obligations;
- whether either party is entitled to a pension or superannuation;
- the length of the marriage and what is an appropriate standard of living for each party;
- whether persons seeking maintenance have to care for children;
- the extent to which a marriage has affected the earning capacity of the marriage partners; and
- the possibility of the persons concerned taking on training courses or further educational courses to improve employment prospects.

Both parties are liable to maintain their children according to their respective means and the Court is guided by similar considerations in deciding what order to make.

Matrimonial Property

The Court has power to settle disputes about the family assets, including the power to order a transfer of legal interests in property. When dealing with these disputes the Court considers the interest each of the parties has in the property and the contribution made during the marriage. The new law directs the Court to look at the financial contributions made by the parties and at the contribution made by either party in the capacity of homemaker or parent.

Legal Aid

The new law recognises that even with the simpler procedures, many people will not be able to afford the legal costs associated with Court proceedings. Specific provision is made in the Act for legal assistance to be given to people who are unable to afford legal representation. This is provided on a means and needs test.

The Family Court of Australia has pamphlets printed in English, Arabic, Finnish, German, Italian, Serbo-Croat, Spanish and Turkish to explain the operation of the new Family Law.

Legal Aid

Australian Legal Aid Office

The Australian Legal Aid Office was established by the Commonwealth Government in July 1973. It provides a general problem-solving service of legal advice for persons with an element of need. Each person seeking help from the Office is seen by a lawyer, the problem is identified and advice is given. Further assistance, including assistance in litigation, is available in matters arising under Federal law, including family law, to all persons, and in matters arising under State or Federal law to persons for whom the Commonwealth Government has a special responsibility such as those in receipt of social services, Aboriginals, ex-servicemen, students and newcomers to Australia. The assistance is provided by lawyers of the Office or by referral to private legal practitioners.

The criteria for the provision of further assistance are the merit of the applicant's case and the financial position of the applicant, i.e. whether he satisfies the means and needs test of the Office. In considering the merits, regard is had to all the circumstances, particularly to any advantage the applicant might gain from the provision of assistance and any disadvantage he might suffer if assistance is refused, and the likelihood that the proceedings will be terminated by a decision, settlement or otherwise so as to result in a proper and just advantage to the applicant. The means and needs test is the inability of the applicant to afford the cost of representation in the particular case. A system of contributions by applicants towards the cost of assistance has been in operation since August 1975.

The Office operates in each State and Territory of the Commonwealth: there is a branch in each of the capital cities, and twenty-seven regional offices have been established in suburban and provincial centres. The Office currently (1977) employs some 160 lawyers and 200 supporting administrative staff. The lawyers provide advice at interview to approximately 11,000 persons each month; further assistance is provided by the lawyers or by referral to private legal practitioners to an average of 4,800 persons each month.

Administrative Law

There have been a number of important developments in the field of administrative law:

Australian Law Reform Commission

In 1973 the Federal Government established the Australian Law Reform Commission to reform, modernise and simplify Australia's laws. The Attorney-General makes a reference to the Commission on matters requiring attention and, after examination and study, the Commission reports its findings to the Australian Parliament. The Commission has worked in close association with State law reform bodies and with similar agencies overseas.

Since starting formal operations at the beginning of 1975, the Commission has undertaken law reform studies in criminal investigation procedures; complaints against the police; alcohol, drugs, and driving; the legal protection of privacy; defamation; consumers in debt; insurance contract law; the law on organ transplants; the use of Aboriginal customary law in the Australian legal system; the right of access to civil proceedings; and the provisions of the *Lands Acquisition Act*. Legislative action has been initiated following some of these references.

Administrative Appeals Tribunal

The Administrative Appeals Tribunal came into existence on July 1, 1976. The main purpose of the Tribunal is to reassess bureaucratic decisions. Since its inception, the Government has reviewed and enlarged the Tribunal's scope, so that it is now an effective and efficient body to which citizens can turn when confronted with adverse bureaucratic decisions. The Government has also established an Administrative Review Council to make sure that there are safeguards in legislation to give citizens the right of appeal.

Commonwealth Ombudsman

The office of Commonwealth Ombudsman was established in mid-1977 to investigate complaints about the administrative actions of officials of government departments, statutory authorities and other official bodies. It complements the Administrative Appeals Tribunal.

Bankruptcy

For a description of the provisions of the *Bankruptcy Act* 1966, *see* Year Book No. 55, pages 586–7. The *Bankruptcy Act* was amended in 1970 to remove any obstacle the Act might present to the operation of compositions or schemes of arrangement entered into under State or Territory legislation providing assistance to farmers in respect of their debts.

The following table shows the number of bankruptcies of the various types, together with the disclosed assets and liabilities of the debtors. Details for each State are published in the Annual Report by the Minister for Consumer and Business Affairs on the operation of the *Bankruptcy Act*.

BANKRUPTCY PROCEEDINGS: AUSTRALIA

Year		*Sequestration orders and orders for administration of deceased debtors' estates*	*Compositions*	*Deeds of assignment*	*Deeds of arrangement*	*Total*
1971–72	Number	2,684	64	153	135	3,036
	Liabilities $'000	29,669	1,036	6,298	3,943	40,946
	Assets $'000	10,243	684	3,377	3,540	17,844
1972–73	Number	2,254	71	160	88	2,573
	Liabilities $'000	18,508	1,591	4,630	2,701	27,430
	Assets $'000	9,231	1,290	2,804	2,133	15,458
1973–74	Number	1,637	54	110	63	1,864
	Liabilities $'000	17,194	1,196	3,569	2,280	24,241
	Assets $'000	5,970	646	2,364	1,307	10,288
1974–75	Number	2,061	63	128	80	2,332
	Liabilities $'000	33,788	1,693	15,776	2,742	53,999
	Assets $'000	13,529	1,069	5,129	2,034	21,761
1975–76	Number	1,900	67	118	92	2,177
	Liabilities $'000	48,829	8,969	6,374	15,823	79,995
	Assets $'000	14,188	490	3,864	11,667	30,209

Patents, trade marks and designs

Patents

Patents for inventions are granted under the *Patents Act* 1952–1973, which applies to Australia and to the Territory of Norfolk Island and which is administered by the Commissioner of Patents.

PATENTS: AUSTRALIA

	1972	*1973*	*1974*	*1975*	*1976*
Total applications . .	16,165	16,460	15,950	14,082	14,117
Applications accompanied by provisional specifications .	4,195	4,354	4,036	4,250	4,214
Letters patent sealed . .	10,920	11,670	12,828	12,161	11,074

Trade marks and designs

Under the *Trade Marks Act* 1955–1973, the Commissioner of Patents is also Registrar of Trade Marks. Provision is made for the registration of users of trade marks and for their assignment with or without the goodwill of the business concerned. Under the *Designs Act* 1906–1973 the Commissioner of Patents is also Registrar of Designs

TRADE MARKS AND DESIGNS: AUSTRALIA

	1972	*1973*	*1974*	*1975*	*1976*
Trade marks—					
Received	9,204	10,026	9,209	9,046	10,195
Registered . . .	5,012	5,665	5,303	7,087	4,941
Designs—					
Received	2,228	2,115	1,991	2,105	2,571
Registered . . .	1,608	1,732	1,570	1,733	1,519

Copyright

Copyright is regulated by the Commonwealth *Copyright Act* 1968–1973, which came into force on 1 May 1969. On that date Australia ratified its adherence to the Brussels revision of the Berne Copyright Convention and to the Universal Copyright Convention whereby citizens of member countries are accorded protection by complying with the convention formality requiring proprietors to place on their works the symbol © together with their name and the year of first publication in such a manner and location as to give reasonable notice of their claim of copyright in the works so identified. The new legislation contains no provision for the registration of copyright, and the Copyright Office ceased to exist on 1 May 1969. Copyright is administered by the Attorney-General's Department.

Police

The primary duties of the police are to prevent crime, to detect and detain offenders, to protect life and property, to enforce the law, and to maintain peace and good order. In addition, they perform many duties in the service of the State, e.g. they act as clerks of petty sessions in small centres, as crown land bailiffs, foresters, mining wardens, and inspectors under the Fisheries and various other Acts. In metropolitan and large country areas they also regulate the street traffic. With the exception of the Commonwealth Police Force and the police in the Northern Territory and the Australian Capital Territory, the police forces of Australia are under the control of the State Governments, but their members perform certain functions for the Commonwealth Government, such as acting as aliens registration officers and, concurrently with Commonwealth Police and other Commonwealth Officers, policing various Commonwealth Acts and Regulations.

Women police perform special duties at places where young women and girls are subject to moral danger, control traffic at school crossings and lecture school children on road safety. They also assist male police as required in the performance of normal police duties.

Commonwealth Police Force

The Commonwealth Police Force commenced operations on 21 April 1960. It is the prinicipal agency for the enforcement of the laws passed by the Commonwealth Parliament. It is also responsible for the protection of Commonwealth Government property and interests at various buildings and establishments under the control of the Commonwealth Government. This force co-ordinates the work of other investigation and law enforcement agencies and acts on behalf of the United Nations Organisation for the suppression of obscene literature and trafficking in women.

Under the control of the force is the Australian Police College at Manly, New South Wales, which provides training for officers of various police forces and other agencies in Australia and New Zealand. The force has its Head Office in Canberra and District Offices in each capital city.

The strength of the police forces in Australia and the ranks of the personnel involved in the Commonwealth, State and Territorial police forces are shown in the following table.

POLICE FORCES(*a*)

At 30 June—	*C'wealth*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*
1974	1,114	8,199	(*b*)5,881	3,770	2,721	1,984	939	361	524
1975	1,502	8,537	(*b*)6,018	3,949	2,879	2,280	976	457	557
1976	1,466	8,628	(*b*)6,730	4,034	3,007	2,358	1,004	417	551
Comprising in 1976—									
Executive officers	16	51	62	16	33	28	8	8	7
Inspectors	43	214	258	106	59	48	51	21	18
Sergeants	178	2,105	412	939	340	532	147	104	89
Constables(*a*)	1,229	6,258	(*b*)5,998	2,973	2,575	1,750	798	284	437

(*a*) Includes trainees, cadets and probationary constables in all States and Territories, but excludes cadets in Victoria (*b*) Excludes cadets. *See* footnote (*a*).

Selected crime reported to Police

The following tables show some details of certain categories of offences reported or becoming known to police. This series, which commenced in 1964, is derived from police records and is based, as far as possible, on definitions and procedural arrangements uniformly determined for all States. For definitions and explanatory notes relating to the following statistics *see* Year Book No. 61, pp 475–7.

Offences reported or becoming known to police

The following table shows, for each State and Territory, the number of offences in each of the seven categories covered by this series which were reported or became known to police. The table includes offences reported to and investigated by the Commonwealth Police.

SELECTED CRIME REPORTED OR BECOMING KNOWN TO POLICE:
NUMBER OF OFFENCES (*a*)

Category of Crime	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Homicide (*b*)—									
1973–74 r	245	137	130	45	62	9	14	4	646
1974–75	272	142	121	68	61	17	19	1	701
1975–76	273	127	152	74	53	16	17	2	714
Serious assault—									
1973–74 r	905	1 491	178	168	168	22	64	41	3,037
1974–75	908	1,104	307	213	238	33	42	34	2,879
1975–76	837	1,413	537	244	320	45	43	34	3,473
Robbery—									
1973–74 r	1,519	891	294	262	130	46	20	22	3,184
1974–75	1,705	889	343	288	141	46	39	16	3,467
1975–76	1,319	826	332	269	145	35	29	18	2,973
Rape—									
1973–74 r	308	209	66	101	31	17	25	9	766
1974–75	364	212	75	91	43	11	22	7	825
1975–76	342	273	64	131	71	25	7	7	920
Breaking and entering—									
1973–74 r	38,718	32,888	13,999	13,352	11,563	2,324	1,055	1,236	115,135
1974–75	43,722	34,921	14,387	14,628	14,833	2,564	920	1,203	127,178
1975–76	41,135	33,525	15,657	14,027	14,013	2,792	978	1,196	123,323
Motor vehicle theft (*c*)—									
1973–74 r	21,112	10,953	5,016	4,172	5,214	1,084	677	598	48,826
1974–75	22,301	11,194	5,451	4,679	5,524	1,052	797	542	51,540
1975–76	21,769	10,880	5,199	4,846	5,279	1,032	605	495	50,105
Fraud, forgery and false pretences—									
1973–74 r	10,245	7,889	5,586	5,964	2,489	777	280	426	33,656
1974–75	10,699	10,047	5,932	3,612	3,167	932	312	593	35,294
1975–76	10,219	15,982	8,293	3,238	4,103	809	559	701	43,904

(*a*) Includes attempts. (*b*) Comprising murder, attempted murder, and manslaughter, including manslaughter arising from motor vehicle accidents. (*c*) Includes illegal, unlawful or unauthorised use, etc.

Crimes cleared and persons involved

The tables which follow show, for the various categories of offences, the numbers of offences reported, the numbers cleared, and the numbers of persons involved according to age and sex. Sub-divisions of the categories homicide, breaking and entering, and fraud, etc., are provided.

HOMICIDE: CRIMES REPORTED OR BECOMING KNOWN, CRIMES CLEARED AND PERSONS INVOLVED

	Murder			*Attempted murder*			*Manslaughter(a)*			*All homicide*		
	1973–74	*1974–75*	*1975–76*	*1973–74*	*1974–75*	*1975–76*	*1973–74*	*1974–75*	*1975–76*	*1973–74*	*1974–75*	*1975–76*
Numbers reported or becoming known .	222	225	250	163	172	140	261	314	332	646	701	714
Numbers cleared . .	209	203	225	151	158	131	260	304	325	620	665	698
Persons involved in crimes cleared—												
Aged(*b*)—												
16 years and under .	8	11	7	3	10	2	6	10	6	17	31	15
17 and 18 years .	22	12	16	13	10	11	21	53	50	56	75	77
19 and 20 years .	23	24	18	15	8	12	37	43	54	75	75	84
21 years and over .	176	159	156	107	104	84	201	216	211	470	479	451
Total persons involved . .	**229**	**206**	**197**	**138**	**132**	**109**	**265**	**322**	**321**	**(*c*)632**	**(*c*)660**	**(*c*)627**

(*a*) Includes manslaughter arising from motor vehicle accidents. (*b*) Age last birthday at time of clearance. (*c*) Includes 51 females in 1973–74, 58 in 1974–75 and 55 in 1975–76; includes, in 1973–74, 14 persons whose age is not known.

SERIOUS ASSAULT, ROBBERY, RAPE: CRIMES REPORTED OR BECOMING KNOWN CRIMES CLEARED AND PERSONS INVOLVED

	Serious assault			*Robbery*			*Rape*		
	1973–74	*1974–75*	*1975–76*	*1973–74*	*1974–75*	*1975–76*	*1973–74*	*1974–75*	*1975–76*
Numbers reported or becoming known . .	3,037	2,879	3,473	3,184	3,467	2,973	766	825	920
Numbers cleared . .	2,029	2,046	2,600	800	1,018	911	418	458	483
Persons involved in crimes cleared—									
Aged(*a*)—									
16 years and under .	225	202	219	192	258	209	73	84	80
17 and 18 years . .	311	274	326	254	299	243	91	106	134
19 and 20 years . .	262	240	320	199	207	167	92	105	91
21 years and over .	1,311	1,350	1,734	416	537	457	237	263	284
Total persons involved	**(*b*)2,109**	**(*b*)2,066**	**(*b*)2,599**	**(*c*)1,061**	**(*c*)1,301**	**(*c*)1,076**	**493**	**558**	**589**

(*a*) Age last birthday at time of clearance. (*b*) Includes 136 females in 1973–74, 116 in 1974–75 and 151 in 1975–76. (*c*) Includes 69 females in 1973–74, 85 in 1974–75 and 69 in 1975–76.

BREAKING AND ENTERING: CRIMES REPORTED OR BECOMING KNOWN, CRIMES CLEARED AND PERSONS INVOLVED

	Dwellings			*Shops*			*Other buildings*			*All breaking and entering*		
	1973–74	*1974–75*	*1975–76*	*1973–74*	*1974–75*	*1975–76*	*1973–74*	*1974–75*	*1975–76*	*1973–74*	*1974–75*	*1975–76*
Numbers reported or becoming known .	59,231	64,572	62,750	22,662	24,807	23,035	33,242	37,799	37,500	115,135	127,178	123,323
Numbers cleared .	12,246	12,815	11,756	5,741	5,959	5,750	5,366	6,285	6,693	23,353	25,059	24,199
Persons involved in crimes cleared—												
Aged(*a*)—												
16 years and under	4,249	4,657	4,036	2,503	2,524	2,816	2,841	3,181	3,610	9,593	10,362	10,462
17 and 18 years .	1,137	1.051	871	1,017	1.013	900	595	701	649	2,749	2,765	2,420
19 and 20 years .	487	500	495	555	609	530	366	413	377	1,408	1,522	1,402
21 years and over	1,185	1,216	1,383	1,251	1,329	1,126	844	956	889	3,280	3,501	3,398
Total persons involved .	**7,058**	**7,414**	**6,785**	**5,326**	**5,475**	**5,372**	**4,646**	**5,251**	**5,525**	**(*b*)17,030**	**(*b*)18,150**	**(*b*)17,682**

(*a*) Age last birthday at time of clearance. (*b*) Includes 661 females in 1973–74, 871 in 1974–75 and 769 in 1975–76.

MOTOR VEHICLE THEFT, ETC., FRAUD, ETC.: CRIMES REPORTED OR BECOMING KNOWN, CRIMES CLEARED, AND PERSONS INVOLVED

	Motor vehicle theft,(a)			*Fraud, forgery, false pretences*								
				Valueless cheques			*Other*			*All fraud, etc.*		
	1973–74	1974–75	1975–76	1973–74	1974–75	1975–76	1973–74	1974–75	1975–76	1973–74	1974–75	1975–76
Numbers reported or becoming known .	48.826	51,540	50,105	9,492	10,382	10,946	24,164	24,912	33,310	33,656	35,296	43,904
Numbers cleared . .	10,411	10,939	10,668	5,708	6,904	6,966	18,831	19,062	23,745	24,539	25,966	30,731
Persons involved in offences cleared—												
Males aged (*b*)—												
16 years and under .	4,788	5,183	4,738	83	90	90	355	384	436	438	474	526
17 and 18 years .	2,460	2,787	2,583	96	115	113	405	431	465	501	546	578
19 and 20 years .	1,067	1,252	1,199	129	148	122	365	451	557	494	599	679
21 years and over .	1,731	1,981	2,047	1,418	1,492	1,259	3,126	3,596	3,667	4,544	5,088	4,926
Total Males .	*10,046*	*11,203*	*10,567*	*1,726*	*1,845*	*1.584*	*4,251*	*4,862*	*5,125*	*5,977*	*6,707*	*6,709*
Females aged (*b*)—												
16 years and under .	199	195	193	12	30	19	109	192	194	121	222	213
17 and 18 years .	61	55	55	29	29	59	144	164	206	173	193	265
19 and 20 years .	19	22	25	29	45	42	135	164	176	164	209	218
21 years and over .	39	57	53	210	214	242	812	787	815	1,022	1,001	1,057
Total females .	*318*	*329*	*326*	*280*	*318*	*362*	*1,200*	*1,307*	*1,391*	*1,480*	*1,625*	*1,753*
Total persons involved . .	**10,364**	**11,532**	**10,893**	**2,006**	**2,163**	**1,946**	**5,451**	**6,169**	**6,516**	**7,457**	**8,332**	**8,462**

(*a*) Includes illegal, unlawful and unauthorised use, etc. (*b*) Age last birthday at time of clearance.

The number of stolen motor vehicles recovered was: 1973–74, 41,830; 1974–75, 44,813; 1975–76, 42,648.

Drug offences

Australia is a signatory to the Single Convention of Narcotic Drugs which has as its main aim the limitation of narcotic drugs to legitimate medical and research purposes.

As its name implies, the Single Convention covers only the so-called narcotic drugs. In recognition that there are other drugs of dependence, the member nations met during 1970 and 1971 and drew up a further Convention to impose controls on psychotropic substances such as hallucinogens, amphetamines, other central nervous system stimulants, barbiturates, tranquillisers and certain other sedatives.

Legislative provisions

Regulation 5 of the Customs (Prohibited Imports) Regulations made under Section 50 of the *Customs Act* 1901 provides the legal controls for the importation of narcotic drugs and other drugs of dependence. Under this regulation all importers of these drugs must be licensed and must obtain permission in writing for each importation. Importers are also required to keep these drugs in a secure place and to keep such records as may be required concerning use or disposal.

The manufacture of narcotic drugs in Australia is controlled under the *Narcotic Drugs Act* 1967. The Act requires that a manufacturer shall be licensed and shall comply with strict conditions and directions relating to such manufacture and the handling of the drugs concerned. The regulation, control and prohibition of the selling, using, possessing and administering (including smoking) of poisons, restricted substances, drugs of addiction, dangerous drugs and deleterious substances are subject to State and Territory legislation.

In some States this legislation also provides for the offence of 'trafficking' (where there is possession of a minimum specified quantity of a prescribed substance, prohibited drug, or drug of addiction, such possession being *prima facie* for the offence), and for the offence of being the owner, lessee, or concerned in the management of any premises used for the purposes of drug abuse such as the smoking of opium or indian hemp. Offences of habitually consorting, etc. with reputed drug offenders are also covered under State legislation.

Since 1970 some States have introduced legislation requiring that stocks of dangerous drugs in pharmacies be stored in heavy metal safes.

All State Governments have agreed to a uniform code of penalties based on those applicable in Commonwealth Government legislation.

Law enforcement

Law enforcement in respect of drugs is handled by State police forces, the Commonwealth Police Force and the Department of Business and Consumer Affairs. In 1969 a National Standing Control Committee on Drugs of Dependence was established to consider further action by the Commonwealth and States to combat all aspects of the drug problem in Australia and to make recommendations on legislation and administrative action. The Committee is chaired by the Secretary of the Department of Business and Consumer Affairs. The Department administers the Australian Narcotics Bureau and the Bureau of Customs, and has responsibility for the enforcement of laws controlling importing and exporting of drugs. Membership of the Committee is comprised of senior officers of the Commonwealth and State police and health authorities. Its Deputy Chairman is the Director-General of the Australian Department of Health.

The National Standing Control Committee on Drugs of Dependence recommended that the Australian Crime Intelligence Centre (formerly known as the Central Crime Intelligence Bureau) of the Commonwealth Police Force serve as the national agency for the systematic collection, collation, evaluation and dissemination of information concerning the illicit drug traffic in Australia. The following extracts are from detailed statistics published in *Drug Abuse in Australia: A Statistical Survey* prepared annually by the Australian Crime Intelligence Centre of the Commonwealth Police. They include information from all police forces and the Department of Business and Consumer Affairs.

DRUG OFFENCES: OFFENCE TYPE, CLEARED BY CHARGE, 1973 TO 1975

Year	*Possess*	*Import*	*Use/ administer*	*Traffic*	*Steal*	*False pretences*	*Forged scripts*	*Other and non-related crime*
1973	2,999	144	1,859	458	214	67	254	468
1974	5,097	172	2,532	470	161	42	66	199
1975	7,878	81	4,537	877	228	103	343	1,238

DRUG OFFENCES: NUMBER OF CHARGES (*a*) INVOLVING SPECIFIC DRUG TYPES, 1973 TO 1975

Type of drug and Year	*Possess*	*Import*	*Use/ administer*	*Traffic*	*Steal*	*False pretences*	*Forged scripts*	*Other*	*Total*
Narcotics—									
1973	290	18	304	82	148	67	227	33	1,169
1974	367	36	312	89	165	57	89	43	1,158
1975	590	15	581	147	73	78	305	87	1,876
Cannabis—									
1973	2,642	138	1,391	243	9	..	..	410	4,833
1974	4,125	152	1,964	342	2	..	..	591	7,176
1975	7,518	68	3,809	686	1	..	..	926	13,008
Amphetamines—									
1973	49	..	16	12	4	2	56	5	144
1974	29	2	20	5	..	..	..	3	59
1975	26	..	17	3	3	..	20	1	70
Barbiturates/ hypnotics—									
1973	27	..	9	11	10	..	6	1	64
1974	58	..	20	11	10	1	3	1	104
1975	150	1	97	20	11	6	22	8	315
Tranquillisers—									
1973	12	1	4	2	3	1	2	..	25
1974	18	..	1	..	10	1	4	..	34
1975	17	..	11	3	3	12	46	7	99
Hallucinogens—									
1973	207	15	124	123	1	..	..	..	470
1974	133	5	79	27	..	..	..	2	246
1975	282	4	104	57	..	..	..	2	449
Other—									
1973	..	..	..	..	..	..	..	..	..
1974	172	2	15	24	40	3	9	23	288
1975	7	..	5	..	5	3	1	..	21
Grand total—									
1973	**3,227**	**172**	**1,848**	**473**	**175**	**70**	**291**	**449**	**6,705**
1974	**4,902**	**197**	**2,411**	**498**	**227**	**62**	**105**	**663**	**9,065**
1975	**8,590**	**88**	**4,624**	**916**	**96**	**99**	**394**	**1,031**	**15,847**

(*a*) If a number of different drug types have been involved in an offence, they are counted under each drug category.

PROSECUTIONS AND CONVICTIONS FOR DRUG OFFENCES REPORTED TO THE AUSTRALIAN CRIME INTELLIGENCE CENTRE: PERSONS INCLUDED

	Number of offenders			*Number of individual charges*			*Convictions on individual charges*		
	1973	*1974*	*1975*	*1973*	*1974*	*1975*	*1973*	*1974*	*1975*
Males aged—									
16 years and under .	190	295	598	195	308	688	125	95	92
17 and 18 years .	810	1,403	2,441	910	1,536	2,725	636	572	674
19 and 20 years .	1,250	1,935	3,112	1,433	2,163	3,448	961	968	1,035
21 years and over .	2,456	3,489	5,641	2,894	4,060	6,504	1,967	1,741	1,848
Females aged—									
16 years and under .	84	98	144	91	106	167	54	28	23
17 and 18 years .	182	211	420	202	240	452	130	82	117
19 and 20 years .	187	275	426	211	307	470	144	139	135
21 years and over .	263	409	705	332	459	831	222	180	202
Persons . .	**5,422**	**8,115**	**13,487**	**6,268**	**9,179**	**15,285**	**4,239**	**3,805**	**4,126**

	Sentences on convictions								
	Fines imposed			*Gaol sentences*			*Number of bonds granted*		
	1973	*1974*	*1975*	*1973*	*1974*	*1975*	*1973*	*1974*	*1975*
Males aged—									
16 years and under .	35	36	32	2	1	..	74	51	45
17 and 18 years .	315	406	489	44	17	14	224	131	163
19 and 20 years .	683	708	783	110	87	51	235	134	176
21 years and over .	1,255	1,239	1,319	187	186	177	410	233	299
Females aged—									
16 years and under .	4	4	3	3	..	..	37	16	20
17 and 18 years .	52	50	81	3	4	3	83	33	33
19 and 20 years .	62	97	95	13	4	2	53	33	42
21 years and over .	105	105	123	16	10	9	77	53	57
Persons . .	**2,511**	**2,645**	**2,925**	**378**	**309**	**256**	**1,193**	**684**	**835**

Convicted prisoners

There are prisons in all States and the Northern Territory. In the Australian Capital Territory there are lock-ups attached to each of the police stations in Canberra and at Jervis Bay, as well as a remand centre in the Canberra suburb of Belconnen where offenders are held for short periods. Prisoners sentenced by a court in the Australian Capital Territory to more than five days are usually held in New South Wales prisons.

CONVICTED PRISONERS

30 June—	*N.S.W. (a)*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
1972 . .	3,641	2,192	1,313	816	1,269	339	252	9,822
1973 . .	3,419	2,096	1,414	675	1,105	332	282	9,323
1974 . .	2,696	1,568	1,224	640	915	346	144	7,533
1975 . .	3,009	1,488	1,305	632	867	361	158	7,820
1976 . .	3,221	1,490	1,399	594	873	297	160	8,034

(*a*) Includes Australian Capital Territory prisoners held in New South Wales prisons.

CHAPTER 12

EDUCATION

State and Commonwealth Government responsibilities in education

Under Australia's federal constitution, education is a responsibility of the six State Governments, although the Commonwealth Government is responsible for education in the Australian Capital Territory, Northern Territory, Norfolk Island, Christmas Island and the Cocos (Keeling) Islands.

The six State Governments administer their own systems of primary, secondary and technical education through government departments responsible to State Ministers. In each State except New South Wales and South Australia, a single Education Department is responsible for these three levels of education. In New South Wales and South Australia the Education Department concentrates on primary and secondary education and a separate department is responsible solely for technical and further education. The Commonwealth Government provides similar education services in the Australian Capital Territory and the Northern Territory. Universities and colleges of advanced education in Australia are autonomous institutions established under acts of the appropriate parliament.

Detailed information on the education systems of the States may be found in the respective State year books. Chapter 27 of this Year Book provides details of the situation in the mainland and external Territories.

General Characteristics of Schools

Compulsory education

School attendance is compulsory throughout Australia between the ages of 6 and 15 years (16 years in Tasmania), but many States accept children below the age of 6. In all States and Territories the opportunity for four year olds to attend pre-school is becoming more widely available.

The Education legislation in each State and Territory requires that all children between the prescribed ages must attend either a government school or some other recognised educational institution. In 1977 over 630,000 students attended non-government schools, of which about 80 per cent attended Catholic schools. The organisation of Catholic primary schools is largely diocesan; Catholic secondary schools are either diocesan or administered by religious orders. Most other non-government schools are under the auspices of, or are actually run by, other religious denominations. Non-government schools must meet certain standards determined by the States or Territories in which they are located. In most States and Territories they cannot be opened, or continue to operate, unless they are registered. Registration is normally dependent upon certification that the school has satisfactory premises and provides regular and efficient instruction.

Funding of schools

Education at all government primary and secondary schools in Australia is free. Each State provides the major portion of funds for its own school system from its general revenue funds. The other source of funds is the Commonwealth Government's Schools Commission. The non-government schools draw funds from private sources and also receive Government financial assistance (both State and Commonwealth).

School organisation and operation

Students in Australia generally proceed from a primary school to a secondary school within their own locality. Primary schools and secondary schools are usually separate institutions. Pre-schools are also normally separate institutions, although some are attached to or near the local primary school. In small towns and communities there are sometimes area or central schools which provide both primary and some secondary schooling, though not necessarily to matriculation level. In Tasmania and the Australian Capital Territory, the final two years of secondary schooling in the Government system are provided at separate colleges.

The majority of government schools in Australia are comprehensive and co-educational. All schools with both primary and secondary enrolments (mainly area or district schools in rural areas), all but a few primary schools, and over four-fifths of secondary schools are co-educational. Under the present policies of school authorities, it is unlikely that any new government single-sex schools will be established.

The situation in non-government schools is different. Approximately three-quarters of non-government secondary schools, and about one half of those with primary schools attached to them, are single-sex.

Australian schools generally operate between approximately 9 a.m. and 3 p.m. for three terms between early February and mid-December. Most schools are constructed around the traditional classroom, although there is a trend towards the provision of some open plan or flexible learning spaces. Schools usually also provide library and sporting facilities.

Generally, schools in Australia now have a considerable degree of autonomy. In recent years most State education departments have established regional administrations which are responsible for matters such as planning school buildings and deploying staff, and a central curriculum unit which provides general guidelines on course planning. In some systems these guidelines are more prescriptive than in others. In general, individual schools offer options and determine teaching and learning approaches within the guidelines and within the limitations of available resources and the aptitudes and interests of their students. Usually parent associations are attached to each school, and there has been encouragement of greater community participation in general decision-making at school level through representation on school councils and boards which are being established in some systems to take some responsibility for school planning and policy formulation.

Schools usually provide educational or vocational counselling through an attached or visiting teacher. Many schools also provide special facilities or teachers to assist migrant children, especially where the schools are located in areas of high migrant density. In all States and the Northern Territory there are special Commonwealth funded education projects designed to assist Aboriginal school children. Notable among these is the widespread use of Aboriginal teacher aides, and bilingual programs in Aboriginal communities where the children's first language is an Aboriginal language.

Pre-school education

Pre-schools were first established by voluntary organisations and a large number are still operated by them with State and Commonwealth financial assistance. Departments of Education in four States and the two Territories are responsible for the administration of pre-school centres. In New South Wales the Department of Education shares the responsibility with welfare authorities, and in Victoria the Department of Health has the complete responsibility for pre-school services.

In recent years most States have announced a commitment to provide pre-school education for all children and therefore Government pre-schools have been increasing more rapidly than those provided by voluntary organisations. In addition, special Commonwealth Government funding has helped to promote a considerable expansion of pre-school facilities for Aboriginal children throughout Australia.

There is no prescribed pre-school curriculum and most teachers working in pre-school centres provide a play-based program with some emphasis on the development of concepts associated with language, science and music. In most States pre-schools operate on a half-day sessional basis and thus accommodate two and sometimes three different groups of children each week.

Primary and Secondary Education

A generalised description of the basic subjects and teaching methods at each level follows.

Primary schools

In the lower primary years the main emphasis is on the development of basic language and literacy skills, simple arithmetic, moral and social education, health training and some creative activities.

In the upper primary years there is development of the skills learned in the earlier years. English, mathematics, social studies, science, music, art and craft, physical education and health are studied. There are also optional subjects such as religious instruction and, in some schools, foreign languages and instrumental music.

Students in Australian primary schools usually have the one class teacher for all subjects, though in schools where open plan learning styles have been adopted, the method of team teaching is often practised. Promotion is generally annual, with peers being promoted on age not achievement, though there has been increasing interest in flexibility in grouping practices in recent years.

Secondary schools

In some systems the first one or two years of secondary school consist of a general program which is followed by all students, although there may be some electives. In later years a basic core of subjects is retained with students being able to select additional optional subjects. In other systems students select options from the beginning of secondary school.

The core subjects in all systems are English, mathematics, science and, usually, a humanities or social science subject. Optional subjects may include a foreign language, a further humanities or social science subject, commerce, art, music, home arts and craft, a manual arts subject, or agriculture. Some schools offer optional courses in subjects such as consumer education, conversational foreign languages, shorthand, typewriting, road safety, drama and leisure-time activities.

In senior secondary years a wider range of options is available in the larger schools. In Queensland, the Australian Capital Territory and Western Australia in particular, individual schools are encouraged to develop courses suited to the needs and interests of their students, subject to accreditation and moderation procedures.

Victoria is the only state which retains a system of secondary technical education. These schools offer a wide range of elective technical subjects. In the Northern Territory three Aboriginal residential colleges assist Aboriginals to participate in secondary education.

Students in Australian secondary schools generally have different teachers for each separate subject area, though, like primary schools, variations may occur where open planned or more flexible methods have been adopted. Promotion is, again, generally chronological, but students may be grouped according to ability after an initial period in unstreamed classes.

Examinations and assessment at each level are carried out by individual schools except in Year 12 in the systems which have retained external examinations at Year 12 level. Students attaining the minimum school leaving age may leave school and seek employment, or enrol in a vocationally oriented course in a technical and further education (TAFE) institution or a private business college. For many TAFE courses, completion of Year 10 of secondary school is a minimum entry requirement. For those continuing to the end of secondary school (Year 12), opportunities for further study are available in TAFE institutions, universities, colleges of advanced education and other post-school institutions. The latter include non-government teachers colleges and a few single purpose government colleges such as the Film and Television School and the National Institute of Dramatic Art.

The entrance requirements of universities and colleges of advanced education are based on Year 12 academic achievement. Standardised scholastic aptitude tests are used by some institutions to assist in the selection of students. Requirements are determined by the individual institutions. Applications are usually required in October or November of the year preceding proposed entry.

Other schooling arrangements

Children may be exempted from the requirement of compulsory attendance if they live too far from a school or suffer a physical disability. These children usually receive correspondence tuition. Special schools are available in larger centres for socially, physically and mentally handicapped children in cases where they are not catered for in special or regular classes in ordinary schools.

In addition to correspondence tuition there are other provisions for children in isolated areas. Schools of the Air operate in New South Wales, South Australia, Queensland, Western Australia and the Northern Territory. Schooling for the children of Aboriginal groups in remote areas of the Northern Territory is conducted by Aboriginal teaching assistants supported by visiting teachers from established schools. Special education is provided by State Governments, although in all States and particularly in New South Wales, Queensland and Victoria, parents have formed voluntary organisations to establish additional schools catering for their children's special needs. The Commonwealth Government, through its Schools Commission, provides funds to State authorities to assist in the upgrading of special education facilities.

Boarding facilities are available at some non-government schools in the larger towns and cities. Some government schools, in particular those catering for special groups such as Aboriginals, have residential hostels close by.

Post-secondary Education

Technical and further education (TAFE)

Like primary and secondary schools, TAFE institutions operate from early February to mid-December, in either three terms or two semesters depending on the institution.

The major part of technical and further education in Australia is provided in government administered institutions variously known as colleges, schools, or centres of technical or further education. There is also some TAFE provision in some colleges of advanced education, agricultural colleges and adult education authorities. These institutions are spread widely throughout Australia in both metropolitan and rural areas. They vary greatly in size and in the scope of their educational provisions, though the largest tend to be located in metropolitan regions.

Each of the States provides the bulk of the finance for its own institutions. The Commonwealth Government provides supplementary funds to the States on the basis of recommendations from the Tertiary Education Commission.

Government TAFE institutions offer an extremely wide range of vocational and non-vocational courses. The majority of students are part-time and employed. About 7.5 per cent of students are external. Apprenticeship and related trade courses constitute about one-fifth of TAFE enrolments. There are also large numbers of other vocational courses for persons not indentured in a trade. These include many certificate courses for prospective technicians and persons engaged in para-professional occupations, particularly in the manufacturing and service industries, and a wide range of courses designed to supplement previous training or to provide specialised instruction in particular aspects of job skills. Other courses offered are those providing pre-vocational training to persons prior to their entry into employment, and preparatory or bridging instruction to persons whose educational experience is not sufficient to permit direct entry to a chosen vocational course.

Government TAFE institutions are also major providers of adult education courses of the personal interest, leisure or general enrichment kind. More than one-quarter of TAFE students are enrolled in courses of this kind.

There are some non-government bodies which offer technical and further education of a non-apprenticeship nature. Business colleges offer courses in secretarial studies, while agencies such as the Workers Educational Association and a range of voluntary groups help meet adult education needs in the community.

Colleges of advanced education

Colleges of advanced education normally operate over three terms or two semesters, beginning in early to late February and running to mid-December. Students commencing courses will have completed a full secondary education, or will have demonstrated that they have a high probability of successfully completing a course. There are quotas on new enrolments at many of the larger colleges. Although there are usually provisions for mature-age entry, the majority of students proceed straight from school. Approximately 60 per cent of students attend full-time.

In 1977 there were seventy three colleges of advanced education. Some are large diversified or multi-vocational institutes, others are small single-purpose colleges. Some colleges specialise in agriculture, art or teacher education. Over 40 per cent of colleges have enrolments below 1,000 students All colleges are funded by the Commonwealth Government.

The principal purpose of the colleges is to provide tertiary education oriented towards practical training and industrial and social needs. The colleges aim to equip students so that immediately after graduation they may play an effective role in commerce, industry, the Public Service and the Arts. The colleges emphasise undergraduate teaching more than research, although some colleges also offer postgraduate level courses, either at the diploma or masters level. Most colleges have a commitment to part-time study, and many offer 'sandwich' courses, which provide a period of full-time study with associated periods of full-time employment. Some colleges also offer external courses.

The duration of a basic undergraduate course in a college of advanced education is two to three full-time years, at the conclusion of which an Associate Diploma, a Diploma or a Bachelor Degree is awarded. A great variety of courses is offered by colleges of advanced education, embracing such areas as applied science, teacher education, liberal arts, business and secretarial studies and para-medical studies.

Although teaching in colleges of advanced education is more vocationally-oriented and less theoretical or academic than in universities, the system of tuition is similar. Lectures, tutorials and seminars are organised by the institution in the subjects offered. Normally, assessment of a student's progress is made by examination and/or completion of prescribed coursework.

Halls of residence are provided at some colleges of advanced education, principally those located in rural areas. These can accommodate some, but usually not all, students enrolled at those institutions.

Universities

The university year in Australia normally runs from late February or early March to mid-December over three terms or two semesters depending on the institution. Students commencing courses will have completed a full secondary education, though most universities have some provisions for admitting persons who can demonstrate that they have a high probability of successfully completing a course. There are quotas on new enrolments in most faculties in Australian universities. Although there are usually provisions for mature-age entry, the majority of students proceed straight from school. Approximately 65 per cent of students attend full-time.

There are nineteen universities in Australia, most of which are located in the capital cities. Universities are autonomous institutions established under acts of the appropriate parliament and financed by the Commonwealth Government. The basic undergraduate course in most disciplines is three or four full-time years in length, at the conclusion of which a Bachelor Degree is awarded. A further one to two years of full-time study is required for a masters degree, and three to five years for a doctoral degree. Universities also offer postgraduate diploma courses in some disciplines. Most universities offer full-time and part-time courses, and some offer external studies. As well as providing undergraduate courses, Australian universities are centres of postgraduate study and research. Some universities have institutes or units involved exclusively in research and/or postgraduate teaching. In 1977, 11.6 per cent of university students were proceeding to higher degrees.

Courses at Australian universities are normally organised in faculties or schools, and students generally elect to study in a number of subject areas, or departments, within a faculty or school. Universities will generally offer some, but not all, of the following courses of study: agriculture, architecture, arts, dentistry, economics, education, engineering, law, medicine, music, science, and veterinary science.

The system of tuition in universities is normally by means of lectures, tutorials and seminars organised by the institution in the subjects offered. Normally, assessment of a student's progress is made by examination and/or completion of prescribed coursework. Theses are required for many postgraduate degrees.

Most universities have halls of residence on the campus which accommodate some, but not all, of the students currently enrolled. Student organisations on campus provide a wide range of sporting and social facilities for students.

Teacher education

The majority of teachers are educated in colleges of advanced education, but a substantial number of secondary teachers and a few primary teachers receive their pre-service education in a university. A few non-government teachers colleges, mostly operated by religious denominations, educate some of the teachers for non-government schools. The majority of pre-school and primary teachers undertake courses of three years' duration before commencing teaching. Most secondary teachers undertake a four year course.

The normal entry requirement for teacher education is determined by the matriculation requirements of individual universities and colleges of advanced education.

A number of teacher education scholarships or bursaries are offered by some State education authorities and, in the Australian Capital Territory and the Northern Territory, by the Commonwealth Teaching Service on a competitive basis. The proportion of students in receipt of such scholarships is declining, while the proportion relying on private finance or means-tested allowances provided by the Commonwealth Government is increasing.

The content of pre-service teacher education is determined by individual universities and colleges of advanced education. Options are available to students but, generally, the three year course for a primary or pre-school teacher includes history and principles of education, general and special methods of teaching, early childhood development and general educational psychology, as well as the subjects they will be teaching. Practice teaching is required.

Secondary teachers are generally expected to specialise in two or three subjects. These may be studied as part of an education degree in either a university or a college of advanced education, or as part of another degree to be followed by a post-graduate diploma in education. As part of their pre-service education, secondary teachers generally take courses in history and principles of education, comparative education, educational psychology and teaching methods. Practice teaching comprises part of the courses.

All education systems provide opportunities for in-service training. Generally, there are two types of in-service training: assistance to teachers to upgrade their formal qualifications by providing various forms of study leave or study assistance; and 'less formal' in-service education through the organisation of a large number of short-term workshops, seminars and conferences. In each State, many of these 'less formal' activities are co-ordinated by a joint committee of representatives of teachers and of government and non-government schools. Also with the assistance of funds from the State Government and the Schools Commission, teachers directly organise many of their own in-service education activities through a number of teachers' centres in each State.

Migrant Education

The Commonwealth Government has responsibility for migrant education. Opportunities are provided for school-age and adult migrants from non-English speaking backgrounds to learn the English language and to assist in their integration into the Australian community.

In most States migrant children are taught English as a second language in 'withdrawal' classes, where migrant children are brought together for certain periods a week for the teaching of basic communication skills in English. Some States offer language assistance to migrant children which is integrated into the total school program. Generally, there has been recognition of the need to provide multicultural education, which acknowledges migrant identity and self-esteem in the general framework of Australian life.

Migrant and multicultural education at the primary and secondary levels is funded by the Schools Commission, which also provides supplementary financial assistance for schools of high migrant density and in-service training of teachers of migrant children. Payments are made to government and non-government education authorities in each State who are responsible for determining priorities and allocating funds.

The Adult Migrant Education Program is co-ordinated and, in the main, funded by the Commonwealth Government. It operates through State government education authorities, language institutes, institutes of technology, technical colleges, school authorities, community groups, employers and unions. An Adult Migrant Education Service in each State recruits and places teachers and other staff to maintain the program operated by the State, organises a variety of day and evening classes, and provides accommodation for these classes.

Among the courses offered are full-time courses, generally varying in length from eight to ten weeks. Students attending these courses are paid a living allowance. A special six-week on the job course has been developed for migrant workers in industry, while the Home Tutor Scheme uses volunteer tutors who work primarily with migrant women in the home to assist in their integration into the community and to help them to learn some introductory English. Education centres are also provided in most of the operating Commonwealth hostels for newly arrived migrants.

As well, the Commonwealth Government has funded a variety of language teaching materials, including *Learning English in Australia* and *Situational English for Newcomers to Australia. English: a New Language* is a journal which is published bi-monthly by the Commonwealth Department of Education. English language teaching is also provided through a radio/correspondence course entitled *Learning English*, and a series of television programs called 'You Say the Word'.

Financial Assistance

Primary and secondary education is free in government schools in all States and Territories although, particularly in high schools, nominal fees may be charged for the hire of textbooks and other school equipment. Most State governments provide financial assistance to parents for educational expenses such as these as well as for transport to and from school, and various forms of scholarship, bursary, boarding and clothing allowances. Many of these forms of assistance are specifically intended to assist low income families.

Post-secondary education (in institutions of technical and further education, colleges of advanced education and universities) has been free since the beginning of 1974.

At the national level, the Commonwealth Government, through its Department of Education, provides a number of schemes of assistance for Australian students to facilitate access to education, particularly at the upper secondary and post-secondary levels. A brief description of these schemes follows:

The Secondary Allowances Scheme aims to help parents with a limited income to keep their children at school for the final two years of secondary education.

The Adult Secondary Education Assistance Scheme provides assistance for mature-age students undertaking full-time the final year of matriculation studies.

The Assistance for Isolated Children Scheme provides special support to families in isolated areas for the education of their children. This scheme also provides funds to assist parents of handicapped children who need to live away from home to attend a special school.

The Aboriginal Secondary Grants Scheme is intended to encourage Aboriginal and Torres Strait Island students to remain at secondary school to extend their education.

The Aboriginal Study Grants Scheme provides Aboriginals and Torres Strait Islanders with opportunities to undertake study after leaving school.

The Tertiary Education Assistance Scheme is a means-tested scheme to assist students enrolled for full-time study in approved courses at institutions of technical and further education, colleges of advanced education, universities and other tertiary institutions in Australia.

Postgraduate Awards are competitive awards for full-time postgraduate research and coursework at universities and colleges of advanced education.

Awards for Overseas Study provide opportunities for Australians to study overseas. Some of the major awards are the *Commonwealth Scholarship and Fellowship Plan*, the *ANZAC Fellowships*, the *Australian-American Educational Foundation Awards*, the *Confederation of British Industry Awards*, and scholarships from the Chinese, French, German and Japanese governments. Most of these awards are at the postgraduate level. There are also overseas study awards offered exclusively to Aboriginals and Torres Strait Islanders.

In addition, the States offer various schemes of assistance at the primary and secondary level; some are paid directly to the schools, others to the student or the student's parents. Many of these awards are intended to offset the cost of books, to enable students to attend special schools, or to assist students in remote areas who need to live away from home or to travel long distances to attend school.

Some universities have a small number of scholarships or other forms of assistance to enable students to undertake tertiary study. Some of these awards are at the postgraduate level, and some are for study overseas. Some non-government schools also offer scholarships and bursaries to assist students.

Administrative Structure of Education at the National Level

As previously stated, the Commonwealth Government has direct responsibility for education only in the Territories. (See relevant State Year Books for a description of State administrative structures). The Commonwealth Government, however, has special responsibilities for the Aboriginal people and for migration, as well as the power to provide assistance for students. Moreover, the Commonwealth Government is responsible for international relations in education. Accordingly, the Commonwealth Department of Education deals with the administration of schemes of student assistance, international education, migrant education, language teaching and Aboriginal education. The Department also liaises with the media and community groups, and produces a range of publications relating to education in Australia, e.g. the *Directory of Higher Education Courses*, *Education News* and *Hemisphere*, an Asian-Australian monthly.

The Department provides a secretariat for the Organisation for Economic Co-operation and Development (OECD) Advisory Committee on Education and co-ordinates Australia's involvement in the OECD education research activities under the Centre for Educational Research and Innovation (CERI). As well, the Department provides a secretariat for the Australian National Commission for the United Nations Educational, Scientific and Cultural Organisation (UNESCO) which has a specialist Education Committee. The Department also provides a service for other government departments, educational institutions and employing authorities in the assessment of educational qualifications obtained overseas, and is responsible for the supervision of private overseas students studying in Australia.

The Australian Constitution empowers the Commonwealth Government to make grants to the States and to place conditions upon such grants. This power has been used to provide financial assistance to the States specifically for educational purposes. There are two national education commissions which advise the Commonwealth Government on the needs of educational institutions throughout Australia for the purpose of financial assistance: the Schools Commission, which was established in 1973; and the Tertiary Education Commission, which was established in 1977 to replace three former commissions—the Universities Commission, the Commission on Advanced Education and the Technical and Further Education Commission. The Tertiary Education Commission comprises a Commission which is concerned with co-ordinating and intersectoral matters, and three Councils on universities, advanced education and technical and further education.

Generally, the Commissions are required to consult with State authorities (and, in the case of the Schools Commission, with the authorities conducting non-government schools) and such other persons, bodies and authorities as they think necessary before making recommendations to the Commonwealth Government on the amount of financial assistance required, both in general and for specific purposes, to meet the needs of each sector.

The needs for financial assistance for pre-school and child care facilities are considered at the national level by the Office of Child Care within the Commonwealth Department of Social Security.

Commonwealth Government education authorities also function as co-ordinating agencies for joint activity by the States and Territories in a number of fields.

The Australian Council on Awards in Advanced Education seeks, in consultation with State co-ordinating bodies, to establish consistency in awards in advanced education by establishing, maintaining and publishing a register of such awards.

A national *Curriculum Development Centre* was established in 1973 by the Commonwealth Government with the co-operation of the States to produce, promote research into, and disseminate information about school curricula and school educational matters. The Curriculum Development Centre has responsibility for the National Committee on Social Science Teaching, the National Committee on English Teaching, and the Asian Studies Co-ordinating Committee, and has funded a number of projects such as the Social Education Materials Project (SEMP).

A number of other bodies at the national level have an important co-ordinating, planning or funding role.

The Australian Education Council, comprising the Commonwealth and State Ministers for Education, meets at least once each year as a consultative body to consider matters of mutual interest, such as the material and personnel needs of schools and co-operation in educational developments generally. It is assisted by a Standing Committee consisting of senior officials including the Directors-General of Education in each State and the Secretary of the Commonwealth Department of Education.

The Conference of the Directors-General of Education also meets annually. Matters discussed and decisions reached at the Conference have a direct influence in each State and Territory on such matters as pre-service and in-service education of teachers, school staffing, curricula, special education, building programs, administrative procedures and the extent of uniformity and diversity between education systems. Under the auspices of the Directors-General Conference, regular meetings of senior specialist personnel are held.

The Commonwealth Government also has an important role in the encouragement and financing of educational research, which is principally carried out in universities, colleges of advanced education and in State and Commonwealth Departments of Education.

The Education Research and Development Committee (ERDC), established in 1970 as the Australian Advisory Committee on Research and Development in Education (AACRDE), is an advisory committee to the Commonwealth Minister for Education. It co-ordinates educational research funded within the Minister's portfolio, provides advice on priorities in educational research and disseminates information on completed research and research in progress which it has funded. The Committee also administers a scheme for providing training for educational researchers.

The Australian Council for Educational Research (ACER) is an independent national research organisation. The Council is funded by annual grants from each of the State governments and the Commonwealth Government, as well as from its own activities. The Council is involved in subsidised and contract research and plays a central role in the development, production and distribution of tests and other measuring instruments, and on research into teaching and learning, and into the broad foundations of education. ACER acts as the Australian national centre for the program of international surveys of student achievement conducted by the International Association for Evaluation of Educational Achievement (IEA).

There are also a number of non-government organisations which have a co-ordinating role in education at the national level. These include the *National Catholic Education Commission*, the *National Council for Independent Schools*, the *Australian Vice-Chancellors' Committee*, the *Australian Conference of Principals of Colleges of Advanced Education* and the *Australian High School Principals' Association*. Teachers at various levels have national organisations, as do some community and parental groups. The Australian Union of Students is a national organisation for tertiary students. (For further details see the *Commonwealth Education Directory*, published by the Commonwealth Department of Education).

Major Current Issues in Education

Some of the major initiatives taken in education at the national level are discussed below. (See relevant State Year Books for a description of State issues).

The Committee of Inquiry into Education and Training

In the decade since the Martin Report on Tertiary Education in Australia, which strongly influenced the present form of Australia's tertiary education system, there has been growing recognition of the importance of technical and further education and interest in concepts of open education, recurrent education and retraining. There is now concern about the overall pattern of post-secondary education. There is also concern about problems of the relationship between secondary or post-secondary education on the one hand and subsequent employment and careers on the other.

To assist in developing constructive policies in these areas, the Commonwealth Government has established a Committee of Inquiry into Education and Training, under the Chairmanship of Professor B. R. Williams, to make recommendations to the Commonwealth Government on the desirable overall pattern of post-secondary education which should be developed in Australia during the next twenty to twenty-five years.

Issues of major concern, clearly reflected in a number of recent and current inquiries, are the co-ordination and rationalisation of existing types of post-secondary institutions, the relevance of new kinds of institutions and the capabilities of both existing and possible new structures for meeting the educational needs and preferences of the individual, the community and the requirements of the labour market.

In considering the relationship between the labour market and the education system, the committee was asked to extend its review into secondary education, having regard to the fact that a significant number of children do not proceed beyond Year 10 in secondary schools.

Supply of and demand for teachers

The effects of financial constraints, reduced rates of teacher wastage and the projections of a national population inquiry combined in 1975 and 1976 to reverse a long established shortage of teachers. In 1975, several education systems were still actively recruiting a substantial number of teachers from other English-speaking countries, but in 1976 recruitment was largely confined to particular categories such as mathematics, physical education and music teachers. These remained in short supply despite a general excess of teachers in most States.

In 1975, a joint study group comprising representatives of the national education commissions and the Commonwealth Department of Education was established to assess the expected supply of and demand for primary and secondary teachers over the next ten years. In 1976, the Commonwealth Minister for Education informed the two tertiary education commissions operating at that stage that, in view of the likely supply and demand situation in the school teaching force, the Government believed there should be no increase in 1977 over the number of enrolments in teacher education courses in 1976. The Australian Education Council, after considering a preliminary report by the study group, established a working party in 1976 to consider the study with a view to improving the estimates on both the demand and supply sides at the State level and for Australia as a whole.

In response to the above situation, there have been significant reductions in pre-service teacher education intakes in both universities and colleges of advanced education in 1977, a trend which will continue in 1978. At the same time, however, there has been an increase in postgraduate enrolments at universities, and in enrolments at colleges, by teachers who wish to upgrade their qualifications.

The transition from secondary education to employment

Considerable attention has been focussed, in recent years, on the problem of the transition from secondary education to employment. The National Working Party into the Transition from Secondary Education to Employment, established by the Australian Education Council, published its report in June 1976. During 1976 the Education Committee of the Organisation for Economic Co-operation and Development (OECD) made a detailed examination of Australia's education system, specifically in relation to the transition of young people from school to work and further studies. After considering these reports, the Australian Education Council established, in February 1977, a joint Commonwealth/State Working Party comprising representatives of both Education and Labour and Employment Departments as a steering group for developing proposals to improve careers education and transition services.

Schemes have been introduced to assist young Australians seeking employment. The Commonwealth Department of Education and the Commonwealth Department of Employment and Industrial Relations jointly fund the Educational Program for Unemployed Youth (EPUY). Under this program, $A1.5 million was made available to the States in 1977 for the development and conduct of a pilot remedial scheme in such subjects as English, Mathematics and Communications for young people under 21 years of age whose educational qualifications are low or inadequate for today's labour market conditions. The courses are full-time and vary in duration between two and six months. To be eligible, young people must have been registered as unemployed with the Commonwealth Employment Service for at least four of the previous twelve months and have been away from full-time education for the same period. Other schemes to assist young people in the transition from school to work are NEAT (National Employment and Training System), CRAFT (Commonwealth Rebate for Apprentice Full-time Training), the Relocation Assistance Scheme and the Community Youth Support Scheme.

The Committee on Nurse Education and Training

Over recent years there has been increasing interest, particularly within the nursing profession and colleges of advanced education, about the possibility of professional nurse training being conducted by tertiary education institutions.

In September 1977, the Commonwealth Minister for Education, after consultation with the Commonwealth Minister for Health, established a Committee on Nurse Education and Training to inquire into and make recommendations to the Tertiary Education Commission on possible developments and changes in nurse education and training, including whether such education should take place in hospitals or educational institutions or both.

Australian Maritime College

Following the passing of the Maritime College Act in 1976, the Commonwealth Government is establishing the Australian Maritime College at Launceston, Tasmania to train deck, engineer and radio officers as well as other maritime and fishing industry personnel.

National Aboriginal Education Committee

In the decade since the 1967 Referendum widened the Commonwealth Government's responsibility for Aboriginal and Torres Strait Islands people, there has been more interest and activity in Aboriginal education than ever before. Commonwealth funds have been made available to develop programs and to help education authorities throughout the country to make special efforts for Aboriginal people at all levels of education (*see* pp. 710, 718, 719). In all these activities there has been some consultation with and involvement of Aboriginal people, but a major step forward in this direction was the establishment in March 1977 of a National Aboriginal Education Committee (NAEC).

Comprised entirely of Aboriginal and Torres Strait Islander people, the NAEC advises the Minister and Department of Education on the educational needs of Aboriginal and Torres Strait Islander people, and on appropriate methods of meeting these needs. Its advice is available to the Minister, the Department of Aboriginal Affairs and to other appropriate authorities. Its establishment marks a significant development in obtaining an effective voice for Aboriginals in policy formation at the national level.

Educational Training in the Defence Force

Information on educational training in the Defence Force is contained in Chapter 4, pp. 82–85 inclusive.

EDUCATION STATISTICS

For the most recent statistics available on subjects dealt with in this chapter reference should be made to the series of mimeographed bulletins on social statistics issued by the Australian Bureau of Statistics. These bulletins comprise *Schools* (4202.0), *Colleges of Advanced Education* (4206.0) and *University Statistics* Parts 1 and 2 (4208.0, 4209.0). Financial aspects are dealt with in the annual bulletins *Public Authority Finance—Federal Authorities* (5502.0), *Public Authority Finance—State and Local Authorities* (5504.0) and *Expenditure on Education* (5510.0). The annual reports of the respective State education departments provide detailed statistical and other information about particular States. The Commonwealth Department of Education issues publications on aspects of primary, secondary and tertiary and other post-secondary education.

Summary tables

Statistics summarising the number of educational institutions in Australia and the number of students attending them in 1976 and earlier years are shown in the following tables. For details of technical and further education institutions and associated enrolments, *see* pages 263–5.

NUMBER OF EDUCATIONAL INSTITUTIONS, 1976

	Schools					
	Government	*Roman Catholic*	*Other non-government*	*Universities*	*Colleges of advanced education (a)*	*Teachers colleges (a)*
New South Wales	2,225	619	172	6	25	4
Victoria	2,164	473	113	3	32	2
Queensland	1,209	284	47	3	10	2
South Australia	625	105	42	2	8	..
Western Australia	640	149	38	2	6	..
Tasmania	250	39	22	1	1	..
Northern Territory	115	9	2	..	..	..
Australian Capital Territory	78	20	4	1	1	1
Australia—1976	**7,306**	**1,698**	**440**	**18**	**83**	**9**
1975	7,266	1,711	429	18	78	16
1974	7,295	1,731	426	17	78	17
1973	7,311	1,754	422	15	43	57
1972	7,362	1,768	422	15	45	59

(*a*) All government teachers colleges and all kindergarten teachers colleges were colleges of advanced education by 1 July 1973.

NUMBER OF STUDENTS ENROLLED AT EDUCATIONAL INSTITUTIONS, 1976

	Schools					
	Government	*Roman Catholic*	*Other non-government*	*Universities*	*Colleges of advanced education (a)*	*Teachers colleges (a)*
New South Wales	799,737	185,118	33,317	60,245	31,132	548
Victoria	624,707	152,343	48,740	38,387	50,085	298
Queensland	334,313	76,697	15,016	20,904	14,517	161
South Australia	233,614	27,511	11,788	13,493	14,560	..
Western Australia	203,898	33,914	10,479	11,293	17,133	..
Tasmania	79,696	9,836	4,172	3,536	2,642	..
Northern Territory	21,830	2,764	245	..	..	..
Australian Capital Territory	37,636	10,578	2,301	6,102	4,545	120
Australia—1976	**2,335,431**	**498,761**	**126,058**	**153,960**	**134,614**	**1,127**
1975	2,297,979	496,199	125,102	148,338	122,557	3,843
1974	2,257,854	494,055	124,426	142,859	107,202	(*b*) 2,911
1973	2,240,642	491,775	120,994	133,126	61,575	(*b*)27,625
1972	2,228,941	492,914	119,096	128,668	52,034	(*b*)25,754

(*a*) All government teachers colleges and all kindergarten teachers colleges were colleges of advanced education by 1 July 1973. (*b*) Excludes students enrolled at both a teachers college and another type of institution: they are included in the statistics for the other institution at which they are enrolled

Schools

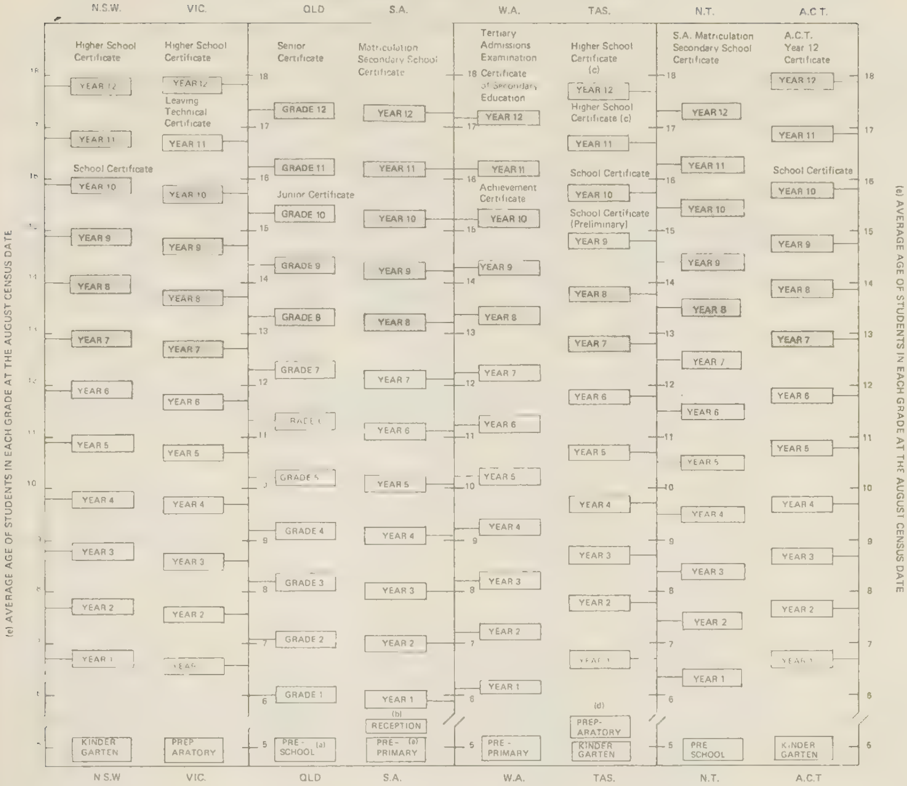
Statistics of government and non-government schools, teachers and students (as at the August schools census dates) in 1976 and earlier years are shown in the following tables. Institutions providing only pre-school education, senior technical and agricultural colleges, evening schools, continuation classes, and institutions such as business colleges and coaching establishments are not included in these statistics. For more detailed statistical information, *see* the annual bulletin *Schools* (4202.0).

NUMBERS OF SCHOOLS, TEACHERS AND STUDENTS, BY CATEGORY OF SCHOOL STATES AND TERRITORIES, 1976

		Non-government schools								
		Denominational								
	Government schools	*Church of England*	*Methodist*	*Presbyterian*	*Roman Catholic*	*Other*	*Undenominational*	*Total*		*All schools*
SCHOOLS										
New South Wales.	2,225	33	6	9	619	27	97	791		3,016
Victoria . .	2,164	30	4	10	473	34	35	586		2,750
Queensland . .	1,209	13	(*a*)	2	284	21	11	331		1,540
South Australia .	625	8	3	2	105	21	8	147		772
Western Australia	640	10	3	2	149	9	14	187		827
Tasmania . .	250	4	1	2	39	8	7	61		311
Northern Territory	115	..	..	..	r9	r2	..	11		126
Australian Capital Territory . .	78	2	..	..	20	1	1	24		102
Australia—1976 .	**7,306**	**100**	**17**	**27**	**r1,698**	**r123**	**173**	**2,138**		**9,444**
1975 .	7,266	101	19	28	1,711	119	162	2,140		9,406
TEACHERS(*b*)										
New South Wales.	42,374	911	209	351	8,038	199	660	10,367		52,741
Victoria . .	37,612	1,322	281	616	6,406	503	501	9,628		47,240
Queensland . .	18,162	350	(*a*)	37	3,179	245	257	4,068		22,230
South Australia .	13,427	230	142	106	1,228	137	146	1,989		15,416
Western Australia	10,345	280	151	109	1,538	59	62	2,199		12,544
Tasmania . .	4,241	111	23	43	439	84	20	720		4,961
Northern Territory	1,195	..	..	..	r119	r10	..	129		1,324
Australian Capital Territory . .	2,312	129	..	..	454	2	15	600		2,912
Australia—1976 .	**129,668**	**3,334**	**806**	**1,262**	**r21,399**	**r1,239**	**1,660**	**29,700**		**159,368**
1975 .	123,441	3,370	822	1,250	20,695	1,224	1,630	28,990		152,431
STUDENTS										
New South Wales	799,737	13,851	3,085	5,116	185,118	3,212	8,053	218,435		1,018,172
Victoria . .	624,707	19,592	4,168	9,380	152,343	8,154	7,446	201,083		825,790
Queensland . .	334,313	5,796	(*a*)	466	76,697	4,258	4,496	91,713		426,026
South Australia .	233,614	3,568	2,094	1,463	27,511	2,732	1,931	39,299		272,913
Western Australia	203,898	4,293	2,197	1,586	33,914	1,170	1,233	44,393		248,291
Tasmania . .	79,696	1,694	366	542	9,836	1,298	272	14,008		93,704
Northern Territory	21,830	..	..	..	r2,764	r245	..	3,009		24,839
Australian Capital Territory . .	37,636	2,039	..	..	10,578	47	215	12,879		50,515
Australia—1976 .	**2,335,431**	**50,833**	**11,910**	**18,553**	**r498,761**	**r21,116**	**23,646**	**624,819**		**2,960,250**
1975 .	2,297,979	50,763	12,696	18,667	496,199	20,821	22,155	621,301		2,919,280

(*a*) There are no Methodist schools in Queensland. Schools conducted by the Presbyterian and Methodist Schools Association are included with 'other'. (*b*) Full-time teachers plus part-time teachers are expressed in equivalent full-time units and rounded to whole numbers. Teachers in training are excluded.

GRADES IN GOVERNMENT SCHOOLS, STATES AND TERRITORIES, 1977


N.S.W.
VIC.
QLD
S.A.
W.A.
TAS.
N.T.
A.C.T.
Higher School Certificate
Higher School Certificate
Senior Certificate
Matriculation Secondary School Certificate
Tertiary Admissions Examination
Certificate of Secondary Education
Higher School Certificate (c)
S.A. Matriculation Secondary School Certificate
A.C.T. Year 12 Certificate
Leaving Technical Certificate
Higher School Certificate (c)
School Certificate
Junior Certificate
Achievement Certificate
School Certificate
School Certificate (Preliminary)
School Certificate
YEAR 12
YEAR 11
YEAR 10
YEAR 9
YEAR 8
YEAR 7
YEAR 6
YEAR 5
YEAR 4
YEAR 3
YEAR 2
YEAR 1
GRADE 12
GRADE 11
GRADE 10
GRADE 9
GRADE 8
GRADE 7
GRADE 6
GRADE 5
GRADE 4
GRADE 3
GRADE 2
GRADE 1
(b) RECEPTION
KINDER GARTEN
PREP ARATORY
PRE-SCHOOL (a)
PRE-PRIMARY (a)
PRE-PRIMARY
(d) PREP-ARATORY
KINDER GARTEN
PRE SCHOOL
KINDER GARTEN
18
17
16
15
14
13
12
11
10
9
8
7
6
5
(e) AVERAGE AGE OF STUDENTS IN EACH GRADE AT THE AUGUST CENSUS DATE

The above diagram shows the usual grades in government primary and secondary schools in each State and Territory Approximate average ages for each grade (at the August schools census) in each State and Territory are given in order to indicate differences in age grade patterns The diagram should not be taken as a comparison of academic standards of grades between States. For a more detailed presentation of the systems operating in each State, reference should be made to diagrams etc appearing in the annual reports of the State Education Departments

In all States and Territories, the non government school sector has an average age grade pattern, which is very similar to that for government schools It should be noted that in some States and Territories there is a trend in both government and non government schools not to allocate pupils into a grade structure

Further explanatory notes

(a) In Queensland and South Australia all pre school children were excluded from the School Census
(b) Reception refers to children who commenced school for the first time between March and August
(c) In Tasmania most students study for the Higher School Certificate over a two year period
In Tasmania many children attend two years kindergarten grade
(e) For age distribution within grades refer to age-grade tables which are available on request from the ABS

Primary Grades ☐
Secondary Grades ⬚

PLATE 30

GOVERNMENT AND NON-GOVERNMENT SCHOOLS: STUDENTS, BY AGE AND SEX AUSTRALIA, 1976

(School census enrolment)

Age last birthday (years)	Government schools			Non-government schools			All schools		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
Under 6	99,208	95,002	194,210	21,217	21,835	43,052	120,425	116,837	237,262
6	107,967	102,435	210,402	23,864	23,786	47,650	131,831	126,221	258,052
7	107,382	101,468	208,850	23,884	24,321	48,205	131,266	125,789	257,055
8	102,365	96,247	198,612	23,574	23,817	47,391	125,939	120,064	246,003
9	100,340	94,400	194,740	24,254	24,118	48,372	124,594	118,518	243,112
10	98,165	92,225	190,390	24,683	24,745	49,428	122,848	116,970	239,818
11	99,277	93,367	192,644	25,764	25,899	51,663	125,041	119,266	244,307
12	102,421	94,574	196,995	27,459	28,007	55,466	129,880	122,581	252,461
13	103,960	96,300	200,260	27,510	28,630	56,140	131,470	124,930	256,400
14	104,252	96,538	200,790	27,375	28,431	55,806	131,627	124,969	256,596
15	89,113	81,147	170,260	25,912	26,573	52,485	115,025	107,720	222,745
16	56,497	51,597	108,094	19,421	19,630	39,051	75,918	71,227	147,145
17	27,875	26,076	53,951	12,766	12,048	24,814	40,641	38,124	78,765
18	7,286	5,073	12,359	2,639	1,799	4,438	9,925	6,872	16,797
19 and over	1,568	1,306	2,874	496	362	858	2,064	1,668	3,732
Australia—1976	**1,207,676**	**1,127,755**	**2,335,431**	**310,818**	**314,001**	**624,819**	**1,518,494**	**1,441,756**	**2,960,250**
1975	1,191,171	1,106,808	2,297,979	308,756	312,545	621,301	1,499,927	1,419,353	2,919,280

SCHOOLS: STUDENTS, BY AGE, 1976

(School census enrolment)

Age last birthday (years)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Under 6	90,281	68,262	22,205	23,157	14,887	8,688	4,942	4,840	237,262
6	85,692	71,295	40,054	23,020	22,864	7,837	2,435	4,855	258,052
7	85,756	71,962	38,772	22,834	22,978	8,043	2,299	4,411	257,055
8	80,726	69,014	37,751	22,490	21,890	7,829	2,176	4,127	246,003
9	81,682	67,077	37,226	21,602	21,917	7,427	2,182	3,999	243,112
10	80,791	65,609	36,424	22,420	21,403	7,336	1,959	3,876	239,818
11	81,698	67,169	37,431	22,920	21,538	7,754	1,889	3,908	244,307
12	85,984	67,586	39,220	23,631	22,057	8,183	1,926	3,874	252,461
13	87,212	69,061	39,785	24,049	22,693	8,107	1.560	3,933	256,400
14	88,041	69,162	39,696	23,802	22,112	8,463	1,343	3,977	256,596
15	78,832	62,028	30,270	21,231	17,926	7,918	1,151	3,389	222,745
16	51,708	46,179	17,404	14,290	10,398	3,757	633	2,776	147,145
17	30,836	24,713	8,198	5,979	5,195	1,650	261	1,933	78,765
18	7,941	5,062	1,267	1,201	374	398	56	498	16,797
19 and over	992	1,611	(*a*)323	287	59	314	27	119	3,732
Australia—1976	**1,018,172**	**825,790**	**426,026**	**272,913**	**248,291**	**93,704**	**24,839**	**50,515**	**2,960,250**
1975	1,007,811	816,951	418,722	274,009	239,204	93,379	21,830	47,374	2,919,280

(*a*) Excludes 3,668 correspondence students (1,363 males, 2,305 females) aged 19 years and over.

Technical and further education

The major part of technical and further education (TAFE) in Australia is provided in a network of government-administered institutions variously known as colleges, schools or centres of technical or further education. In addition, TAFE vocational courses are conducted by certain colleges of advanced education and by agricultural colleges in New South Wales and Victoria, and a large number of bodies, both statutory and voluntary, participate in the provision of adult education programs. The following statistics relate to technical and further education activities of the major government departments/divisions of TAFE, agricultural authorities and advanced education authorities; they do not include activities of bodies such as the Board of Adult Education in New South Wales, the Council of Adult Education in Victoria and the Australian Capital Territory evening colleges. For further information on the organisation of TAFE and associated statistical details, *see* the report, *Tertiary Education Commission—Recommendations For 1978*, August 1977, the *First Report of the Technical and Further Education Commission*, July 1976 and previous reports of the Australian Committee on Technical and Further Education.

TECHNICAL AND FURTHER EDUCATION: TYPE OF INSTITUTION AND ENROLMENTS BY ACADEMIC STREAM, 1976

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Australia*
Type of institution—									
Major TAFE Authorities—									
Major institutions(*a*)	66	32	24	35	26	5	1	2	191
Annexes(*b*)	140	3	2	352	..	..	4	5	506
Other institutions(*c*)	2	193	11	..	90	5	..	..	301
Annexes(*b*)	..	3	..	..	..	..	..	..	3
Agricultural colleges(*d*)	2	5	..	..	..	..	..	..	7
Colleges of advanced education(*d*)	1	3	5	2	1	..	..	..	12
Total(*e*)	**211**	**239**	**42**	**389**	**117**	**10**	**5**	**7**	**1,020**
Enrolments(*f*)—									
Full-time—									
Academic stream—									
Professional	113	462	384	68	..	..	4	88	1,119
Para-professional	6,052	3,867	1,033	666	2,644	371	..	487	15,120
Trades	1,012	800	54	11	253	..	..	..	2,130
Other skilled	6,980	794	1,675	17	160	447	81	329	10,483
Preparatory	4,045	4,770	128	503	698	183	..	256	10,583
Total	*18,202*	*10,693*	*3,274*	*1,265*	*3,755*	*1,001*	*85*	*1,160*	*39,435*
Part-time(*g*)—									
Academic stream—									
Professional	1,020	130	301	2,384	278	5	..	93	4,211
Para-professional	51,998	21,080	9,531	25,415	34,817	2,980	425	4,461	150,707
Trades	46,576	34,150	17,180	9,487	16,743	4,502	608	2,708	131,954
Other skilled	75,969	18,141	6,398	26,797	3,628	2,159	528	3,423	137,043
Preparatory	17,937	36,360	11,302	16,420	8,065	1,548	637	248	92,517
Adult education	16,134	29,719	45,488	46,935	53,542	14,313	4,912	1,534	212,577
Total	*209,634*	*139,580*	*90,200*	*127,438*	*117,073*	*25,507*	*7,110*	*12,467*	*729,009*
Total—									
Academic stream—									
Professional	1,133	592	685	2,452	278	5	4	181	5,330
Para-professional	58,050	24,947	10,564	26,081	37,461	3,351	425	4,948	165,827
Trades	47,588	34,950	17,234	9,498	16,996	4,502	608	2,708	134,084
Other skilled	82,949	18,935	8,073	26,814	3,788	2,606	609	3,752	147,526
Preparatory	21,982	41,130	11,430	16,923	8,763	1,731	637	504	103,100
Adult education	16,134	29,719	45,488	46,935	53,542	14,313	4,912	1,534	212,577
Total—1976	**227,836**	**150,273**	**93,474**	**128,703**	**120,828**	**26,508**	**7,195**	**13,627**	**768,444**

(*a*) Institutions whose functions are primarily TAFE. (*b*) Subsidiaries of parent institutions. (*c*) Institutions whose primary function is other than TAFE. (*d*) Colleges offering TAFE activities. (*e*) Includes parent institutions and subsidiaries of parent institutions as separate institutions. (*f*) Total enrolments registered during the year up to 31 October. (*g*) Including *External* enrolments.

TECHNICAL AND FURTHER EDUCATION: ENROLMENTS(a) BY ACADEMIC STREAM TYPE OF ENROLMENT AND FIELD OF STUDY, 1976

Field of study	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Australia*
					FULL-TIME				
Applied science	137	490	210	..	126	28	..	74	1,065
Art and design	906	970	729	132	510	51	..	205	3,503
Building industry	516	570	..	36	170	..	..	..	1,292
Business studies	7,958	2,140	1,431	212	1,233	552	81	329	13,936
Engineering	2,485	3,060	362	118	399	127	..	176	6,727
Rural and horticultural	309	689	414	150	95	..	..	..	1,657
Music	61	..	21	24	..	..	..	..	106
Para-medical services	176	75	..	10	59	..	..	..	320
Service industries	1,430	929	..	2	306	60	..	120	2,847
General studies	4,224	1,770	107	581	857	183	4	256	7,982
Total	*18,202*	*10,693*	*3,274*	*1,265*	*3,755*	*1,001*	*85*	*1,160*	*39,435*
					PART-TIME				
Applied science	2,192	7,856	1,034	772	1,072	87	26	208	13,247
Art and design	11,479	10,010	18,672	17,267	4,468	4,858	1,544	603	68,901
Building industry	15,417	18,750	7,391	11,222	4,948	1,750	443	1,284	61,205
Business studies	50,393	16,441	6,755	18,313	11,762	1,582	461	3,258	108,965
Engineering	49,235	34,710	15,109	20,209	15,719	3,530	790	2,726	142,028
Rural and horticultural	6,454	7,530	1,188	3,730	916	99	45	631	20,593
Music	29	470	771	3,693	..	513	498	..	5,974
Para-medical services	2,108	170	229	445	239	5	..	35	3,231
Service industries	41,160	17,259	12,738	23,952	3,269	5,333	1,566	3,394	108,671
General studies	17,263	20,498	14,624	17,481	61,046	7.127	1,619	328	139,986
Total	*195,730*	*133,694*	*78,511*	*117,084*	*103,439*	*24,884*	*6,992*	*12,467*	*672,801*
					EXTERNAL				
Applied science	..	240	19	5	329	54	..	..	647
Art and design	510	..	..	477	292	..	1	..	1,280
Building industry	434	340	885	264	554	..	13	..	2,490
Business studies	4,296	2,440	1,486	3,832	3,697	238	..	..	15,989
Engineering	2,375	780	3,445	527	4,011	..	16	..	11,154
Rural and horticultural	1,193	36	500	761	557	..	..	..	3,047
Music	..	..	..	21	..	..	..	..	21
Para-medical services	291	..	127	214	205	..	..	..	837
Service industries	1,327	180	372	282	816	13	26	..	3,016
General studies	3,478	1,870	4,855	3,971	3,173	318	62	..	17,727
Total	*13,904*	*5,886*	*11,689*	*10,354*	*13,634*	*623*	*118*	..	*56,208*
					ALL ENROLMENTS				
Applied science	2,329	8,586	1,263	777	1,527	169	26	282	14,959
Art and design	12,895	10,980	19.401	17,876	5,270	4,909	1,545	808	73,684
Building industry	16,367	19,660	8,276	11,522	5,672	1,750	456	1,284	64,987
Business studies	62,647	21,021	9,672	22,357	16,692	2,372	542	3,587	138,890
Engineering	54,095	38,550	18,916	20,854	20,129	3,657	806	2,902	159,909
Rural and horticultural	7,956	8,255	2,102	4,641	1,568	99	45	631	25,297
Music	90	470	792	3,738	..	513	498	..	6,101
Para-medical services	2,575	245	356	669	503	5	..	35	4,388
Service industries	43,917	18,368	13,110	24,236	4,391	5,406	1,592	3,514	114,534
General studies	24,965	24,138	19,586	22,033	65,076	7,628	1,685	584	165,695
Total—1976	**227,836**	**150,273**	**93,474**	**128,703**	**120,828**	**26,508**	**7,195**	**13,627**	**768,444**
1975	212,108	133,064	83,640	108,986	108,826	25,901	4,138	12,168	688,831

(a) Statistics shown refer to gross enrolments, no allowance having been made for students enrolled in more than one course. Details reported in this table represent the cumulative total of all enrolments registered during 1976 up to 31 October.

NOTE: The statistics for 1975 differ from those published in the Year Book No. 61 as previously only details of major government departments/divisions of TAFE were shown. In this table they are comparable with the statistics for 1976 as they not only include revised statistics of the major TAFE authorities but also enrolments of other authorities conducting TAFE activities.

TECHNICAL AND FURTHER EDUCATION: TEACHING EFFORT (*a*) BY ACADEMIC STREAM, 1976

('000 hours)

Academic stream	*N.S.W.*	*Vic.*	*Qld(b)*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Australia (b)*
FULL-TIME STAFF(*c*)									
Professional	5.6	53.1	15.8	10.3	14.0	..	0.4	4.1	103.3
Para-professional	442.4	456.4	32.0	201.6	280.9	24.2	3.7	35.9	1,477.1
Trades	726.1	832.0	365.7	302.3	203.8	100.0	13.7	37.6	2,581.3
Other skilled	381.5	99.5	97.8	31.7	25.8	24.1	2.9	17.2	680.6
Preparatory	116.0	251.5	71.6	51.0	25.5	2.5	0.5	4.5	523.1
Adult education	23.5	55.0	8.0	25.7	9.7	1.2	2.5	3.2	128.9
Total	*1,695.0*	*1,747.5*	*590.9*	*622.7*	*559.8*	*152.1*	*23.7*	*102.5*	*5,494.1*
PART-TIME STAFF(*d*)									
Professional	8.5	1.2	5.6	1.8	5.4	0.2	0.1	7.0	29.8
Para-professional	364.6	62.6	61.4	56.2	124.9	34.6	1.3	42.5	748.1
Trades	240.9	35.1	13.9	3.2	52.3	17.7	1.8	12.1	377.0
Other skilled	354.8	26.0	17.0	42.0	16.1	13.7	1.4	5.8	476.9
Preparatory	156.2	113.6	32.3	55.1	25.9	7.8	1.9	12.3	405.1
Adult education	51.1	55.8	65.6	157.1	99.7	23.2	8.6	7.8	469.0
Total	*1,176.0*	*294.3*	*195.8*	*315.5*	*324.3*	*97.1*	*15.1*	*87.5*	*2,505.6*
ALL TEACHING STAFF									
Professional	14.1	54.4	21.4	12.2	19.4	0.2	0.5	11.1	133.1
Para-professional	806.9	519.0	93.4	257.8	405.8	58.8	5.0	78.3	2,225.2
Trades	967.1	867.1	379.6	305.5	256.2	117.8	15.5	49.7	2,958.4
Other skilled	736.3	125.5	114.8	73.7	42.0	37.8	4.3	23.0	1,157.4
Preparatory	272.0	365.1	103.9	106.1	51.4	10.3	2.4	16.9	928.0
Adult education	74.6	110.8	73.6	182.9	109.4	24.4	11.2	11.0	597.8
Total—1976	2,871.0	2,041.8	786.7	938.1	884.1	249.3	38.9	190.0	8,000.0
1975	2,655.4	2,045.6	800.4	832.9	841.2	239.1	40.0	169.7	7,624.4

(*a*) Hours of classroom duty performed by teachers during the teaching year (excluding all non-teaching duty). (*b*) Excluded in 1976 is the teaching effort in TAFE courses at Queensland colleges of advanced education. The components affected are the *Para-professional* and *Preparatory* streams. (*c*) All teaching staff employed full-time by the relevant authority or institution, including 'multi-sector' staff whose duties extend to teaching areas other than TAFE. Teaching hours reported in this table relate only to teaching undertaken in TAFE. (*d*) Statistics of part-time teaching effort relate to all teaching duty performed by staff employed part-time by the authority or institution and teaching hours worked on an overtime basis by full-time staff.

Teacher education

By 1 July 1973 all former government teachers colleges and kindergarten teachers colleges were colleges of advanced education. Since then, some non-government teachers colleges have assumed college of advanced education status. The following table shows, for 1976, the number of students undertaking teacher education courses in the nine non-government teachers colleges that did not come into the CAE sector of education. (Statistics on colleges of advanced education are shown elsewhere in this chapter).

STUDENTS ENROLLED IN NON-GOVERNMENT TEACHERS COLLEGES, 1976

State	*Primary*	*Secondary*	*Not classifiable (a)*	*Total*
New South Wales	134	250	164	548
Victoria	298	..	..	298
Queensland	160	..	1	161
Australian Capital Territory	120	..	..	120
Australia—				
Males	230	179	110	519
Females	482	71	55	608
Persons	712	250	165	1,127

(*a*) Not classifiable as only primary or only secondary.

Colleges of Advanced Education

The following statistics refer to operative institutions listed in the appropriate States Grants (Advanced Education) Acts as colleges of advanced education, and the Canberra College of Advanced Education. These tables show details of students commencing advanced level courses, the number of students and teaching staff in 1976 and the number of students who completed advanced level courses in 1975. The reference date for these statistics is 30 April except for students who completed advanced level courses for whom the reference date is 31 December 1975. For more detailed statistics, *see* the annual bulletin *Colleges of Advanced Education* (4206.0).

COLLEGES OF ADVANCED EDUCATION: STUDENTS COMMENCING BY COURSE, LEVEL AND FIELD OF STUDY, 1976 (a)

Field of study	*Master degree*	*Graduate diploma*	*Bachelor degree*	*Diploma*	*Associate diploma*	*Total*		
						Males	*Females*	*Persons*
Agriculture	. .	39	63	264	298	563	101	664
Applied sciences . . .	45	287	2,873	177	223	2,758	847	3,605
Art and design . . .	. .	56	163	2,011	158	1,072	1,316	2,388
Building, surveying and architecture . . .	1	128	591	593	113	1,206	220	1,426
Commercial and business studies	19	1,244	6,096	1,693	1,422	8,351	2,123	10,474
Engineering and technology .	17	157	2,470	543	155	3,287	55	3,342
Liberal studies . . .	1	528	2,241	1,174	639	1,839	2,744	4,583
Music	. .	8	80	259	. .	129	218	347
Para-medical . . .	18	117	1,454	800	700	916	2,173	3,089
Teacher education . .	34	3,988	2,278	15,115	783	7,225	14,973	22,198
Not classifiable. . .	. .	6	. .	. .	. .	3	3	6
Total—1976 . .	135	6,558	18,309	22,629	4,491	27,349	24,773	52,122
1975 . .	168	6,310	16,389	25,592	5,494	28,659	25,294	53,953

(*a*) Excludes students commencing in second semester.

COLLEGES OF ADVANCED EDUCATION: STUDENTS WHO COMPLETED COURSES BY FIELD OF STUDY AND COURSE LEVEL, 1975

Field of study	*Master degree*	*Graduate diploma*	*Bachelor degree*	*Diploma*	*Associate diploma*	*Total*		
						Males	*Females*	*Persons*
Agriculture	. .	39	41	188	136	364	40	404
Applied sciences . . .	7	132	718	265	82	968	236	1,204
Art and design . . .	. .	29	3	795	98	444	481	925
Building, surveying and architecture . . .	. .	16	191	225	73	474	31	505
Commercial and business studies	. .	293	863	1,207	307	2,151	519	2,670
Engineering and technology .	2	35	671	823	56	1,581	6	1,587
Liberal studies . . .	. .	261	350	279	44	418	516	934
Music	. .	2	13	139	. .	37	117	154
Para-medical . . .	2	52	406	388	379	316	911	1,227
Teacher education . .	6	2,955	310	10,929	855	4,689	10,366	15,055
Total—1975 . .	17	3,814	3,566	15,238	2,030	11,442	13,223	24,665
1974 . .	4	3,047	2,564	13,078	1,811	9,693	10,811	20,504

COLLEGES OF ADVANCED EDUCATION: STUDENTS BY TYPE OF ENROLMENT COURSE LEVEL AND FIELD OF STUDY, 1976

Field of study	*Master degree*	*Graduate diploma*	*Bachelor degree*	*Diploma*	*Associate diploma*	*Total*		
						Males	*Females*	*Persons*
				FULL-TIME				
Agriculture	..	36	249	660	545	1,274	216	1,490
Applied sciences	25	65	3,497	367	147	3,080	1,021	4,101
Art and design	..	50	273	4,291	6	2,025	2,595	4,620
Building, surveying and architecture	..	1	1,288	539	133	1,645	316	1,961
Commercial and business studies	..	204	5,520	2,042	654	6,215	2,205	8,420
Engineering and technology	16	18	4,576	1,167	25	5,718	84	5,802
Liberal studies	..	317	2,745	1,505	390	2,075	2,882	4,957
Music	..	8	168	555	..	279	452	731
Para-medical	19	90	2,753	1,234	751	1,177	3,670	4,847
Teacher education	13	3,286	3,390	37,866	1,094	13,502	32,147	45,649
Not classifiable	4	29	..	..	..	24	9	33
Total—1976	*77*	*4,104*	*24,459*	*50,226*	*3,745*	*37,014*	*45,597*	*82,611*
1975	51	3,807	19,653	47,333	3,935	34,359	40,420	74,779
				PART-TIME—INTERNAL				
Agriculture	..	3	2	14	8	24	3	27
Applied sciences	95	367	2,344	351	240	2,869	528	3,397
Art and design	..	50	54	842	317	692	571	1,263
Building, surveying and architecture	2	323	868	1,457	160	2,589	221	2,810
Commercial and business studies	53	2,017	8,402	3,532	1,547	13,654	1,897	15,551
Engineering and technology	58	312	2,947	1,069	357	4,699	44	4,743
Liberal studies	3	511	2,348	1,061	784	2,074	2,633	4,707
Music	..	9	129	234	..	106	266	372
Para-medical	31	48	581	461	416	698	839	1,537
Teacher education	122	1,493	1,452	5,235	98	3,361	5,039	8,400
Not classifiable	..	5	..	..	..	2	3	5
Total—1976	*364*	*5,138*	*19,127*	*14,256*	*3,927*	*30,768*	*12,044*	*42,812*
1975	261	4,095	16,165	14,097	5,169	29,478	10,309	39,787
				PART-TIME—EXTERNAL				
Agriculture	..	..	..	..	69	55	14	69
Applied sciences	..	..	631	7	107	550	195	745
Art and design	..	..	..	22	..	12	10	22
Building, surveying and architecture	..	..	9	2	..	11	..	11
Commercial and business studies	..	211	1,004	722	655	2,193	399	2,592
Engineering and technology	..	..	8	8	2	17	1	18
Liberal studies	..	10	661	300	196	452	715	1,167
Music	..	..	..	1	..	..	1	1
Para-medical	..	..	1	470	37	175	333	508
Teacher education	..	408	297	3,351	2	1,202	2,856	4,058
Total—1976	..	*629*	*2,611*	*4,883*	*1,068*	*4,667*	*4,524*	*9,191*
1975	..	530	1,882	4,092	1,487	4,256	3,735	7,991
				ALL STUDENTS				
Agriculture	..	39	251	674	622	1,353	233	1,586
Applied sciences	120	432	6,472	725	494	6,499	1,744	8,243
Art and design	..	100	327	5,155	323	2,729	3,176	5,905
Building, surveying and architecture	2	324	2,165	1,998	293	4,245	537	4,782
Commercial and business studies	53	2,432	14,926	6,296	2,856	22,062	4,501	26,563
Engineering and technology	74	330	7,531	2,244	384	10,434	129	10,563
Liberal studies	3	838	5,754	2,866	1,370	4,601	6,230	10,831
Music	..	17	297	790	..	385	719	1,104
Para-medical	50	138	3,335	2,165	1,204	2,050	4,842	6,892
Teacher education	135	5,187	5,139	46,452	1,194	18,065	40,042	58,107
Not classifiable	4	34	..	..	..	26	12	38
Total—1976	441	9,871	46,197	69,365	8,740	72,449	62,165	134,614
1975	312	8,432	37,700	65,522	10,591	68,093	54,464	122,557

COLLEGES OF ADVANCED EDUCATION: TEACHING STAFF BY FIELD OF TEACHING STATES AND A.C.T., 1976

Teaching effort in approved courses of full-time and part-time staff, expressed in equivalent full-time units and rounded to whole numbers.

Field of teaching	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*A.C.T.*	*Australia*
FULL-TIME STAFF								
Agriculture	55	9	48	34	12	..	..	157
Applied sciences	197	355	158	45	101	19	75	950
Art and design	93	167	33	62	28	21	..	404
Building, surveying and architecture	28	54	21	35	32	10	13	193
Commercial and business studies	180	377	92	47	88	19	41	845
Engineering and technology	56	432	72	73	69	17	..	718
Liberal studies	69	311	35	80	109	8	50	662
Music	23	5	13	2	..	16	..	59
Para-medical	87	117	26	54	73	7	..	365
Teacher education	1,069	1,298	460	419	402	84	47	3,779
Not classifiable	1	8	..	20	..	4	..	33
Total—1976	*1,858*	*3,134*	*957*	*871*	*914*	*205*	*226*	*8,165*
1975	1,709	3,148	864	823	821	203	204	7,773
PART-TIME STAFF								
Agriculture	2	44	4	..	1	..	..	50
Applied sciences	23	110	15	6	19	3	16	193
Art and design	29	52	..	7	16	3	..	106
Building, surveying and architecture	17	23	23	8	2	1	1	74
Commercial and business studies	28	63	18	9	15	1	9	142
Engineering and technology	25	35	9	9	6	..	..	84
Liberal studies	14	47	8	16	34	1	16	135
Music	38	5	13	..	..	4	..	60
Para-medical	16	34	3	23	30	..	..	106
Teacher education	48	62	11	26	34	5	6	190
Not classifiable	..	39	..	1	..	..	..	40
Total—1976	*241*	*512*	*104*	*104*	*156*	*17*	*47*	*1,181*
1975	195	339	122	103	133	44	57	994
ALL STAFF								
Agriculture	56	52	52	34	13	..	..	207
Applied sciences	221	465	173	51	121	22	91	1,144
Art and design	122	219	33	69	43	24	..	510
Building, surveying and architecture	45	77	44	43	34	11	14	267
Commercial and business studies	208	440	110	56	104	20	50	987
Engineering and technology	81	468	80	82	75	17	..	802
Liberal studies	83	358	43	96	143	9	66	797
Music	61	10	26	2	..	20	..	119
Para-medical	103	151	30	78	103	7	..	471
Teacher education	1,117	1,361	470	445	435	89	53	3,969
Not classifiable	1	47	..	21	..	4	..	73
Total—1976	**2,099**	**3,646**	**1,061**	**975**	**1,070**	**222**	**273**	**9,346**
1975	1,905	3,488	986	926	954	247	261	8,767

Universities

The following university statistics provide details of the total number of students enrolled in university courses, the teaching staff engaged, and the number of students commencing and completing courses. The reference date for the statistics is 30 April except for students completing courses for whom the reference date is the year ended 30 June. For more detailed statistics, *see* the annual publications *University Statistics*, Parts 1 and 2 (4,208.0 and 4,209.0).

UNIVERSITIES: STUDENTS COMMENCING DEGREE COURSES, 1976

	Doctorate (other than Ph.D.) courses	*Ph.D. degree courses*	*Master degree courses*	*Bachelor degree courses*	*Total*		
					Males	*Females*	*Persons*
New South Wales . . .	3	340	2,022	15,623	11,072	6,916	17,988
Victoria	11	244	1,089	10,288	6,951	4,681	11,632
Queensland	8	92	344	5,262	3,214	2,492	5,706
South Australia . . .	9	105	345	3,444	2,460	1,443	3,903
Western Australia . . .	3	86	296	3,774	2,558	1,601	4,159
Tasmania	..	22	45	1,101	724	444	1,168
Australian Capital Territory .	..	196	174	1,582	1,203	749	1,952
Australia–1976 . . .	**34**	**1,085**	**4,315**	**41,074**	**28,182**	**18,326**	**46,508**
1975 . . .	46	966	4,340	40,556	28,071	17,837	45,908

UNIVERSITIES: FULL-TIME AND PART-TIME STUDENTS(*a*) BY SEX AND COURSE LEVEL, 1972 TO 1976

	Males					*Females*				
Level of course	*1972*	*1973*	*1974*	*1975*	*1976*	*1972*	*1973*	*1974*	*1975*	*1976*
					FULL-TIME					
Higher degree . . .	4,295	4,220	4,486	4,756	5,033	973	1,041	1,318	1,458	1,614
Other post-graduate(*b*) . .	1,544	1,743	1,933	1,926	1,847	2,270	2,223	2,268	2,278	1,980
Bachelor degree . . .	48,851	49,389	52,613	54,029	55,139	25,698	26,962	29,876	32,371	34,694
Sub-graduate diploma, certificate and other(*c*) . .	740	225	213	157	171	446	313	298	135	127
Total . . .	*54,612*	*55,577*	*59,245*	*60,868*	*62,190*	*28,983*	*30,539*	*33,760*	*36,242*	*38,415*
					PART-TIME(*d*)					
Higher degree . . .	6,429	6,967	7,634	8,288	8,471	1,360	1,549	1,824	2,174	2,471
Other post-graduate(*b*) . .	1,532	2,179	2,307	2,497	2,699	848	1,050	1,151	1,279	1,332
Bachelor degree . . .	21,902	21,967	21,645	20,764	20,621	9,849	10,750	12,234	12,955	14,121
Sub-graduate diploma, certificate and other(*c*) . .	2,244	1,528	1,653	1,661	1,918	1,193	1,020	1,406	1,610	1,722
Total . . .	*31,928*	*32,641*	*33,239*	*33,210*	*33,709*	*13,145*	*14,369*	*16,615*	*18,018*	*19,646*
					ALL STUDENTS					
Higher degree . . .	10,724	11,187	12,120	13,044	13,504	2,333	2,590	3,142	3,632	4,085
Other post-graduate(*b*) . .	3,076	3,922	4,240	4,423	4,546	3,118	3,273	3,419	3,557	3,312
Bachelor degree . . .	70,753	71,356	74,258	74,793	75,760	35,547	37,712	42,110	45,326	48,815
Sub-graduate diploma, certificate and other(*c*) . .	2,984	1,753	1,866	1,818	2,089	1,639	1,333	1,704	1,745	1,849
Total . . .	**86,540**	**88,218**	**92,484**	**94,078**	**95,899**	**42,128**	**44,908**	**50,375**	**54,260**	**58,061**

(*a*) For 1972, the components do not add to total students as students enrolled for two or more courses were included in each course for which they were enrolled. (*b*) Includes, as well as post-graduate diploma courses, masters and other post-graduate preliminary and qualifying courses which were included with *Sub-graduate diploma, certificate and other* prior to 1973. (*c*) *Other* refers to single and miscellaneous subjects of university standard. *See also* footnote (*b*). (*d*) Includes external students.

UNIVERSITIES: STUDENTS COMPLETING DEGREE AND POST-GRADUATE DIPLOMA COURSES BY FIELD OF STUDY, YEAR ENDED 30 JUNE 1976

	Degrees					
Field of study	*Doctorate (other than Ph.D.)*	*Ph.D.*	*Master*	*Bachelor*	*Post graduate diplomas*	*Total*
Humanities	1	75	192	7,446	..	7,714
Fine arts	..	1	10	121	..	132
Social and behavioural sciences	1	58	148	698	269	1,174
Law	..	5	57	1,342	1	1,405
Education	..	16	273	995	3,553	4,837
Economics, commerce, government	..	32	300	3,072	47	3,451
Medicine	22	78	34	1,494	116	1,744
Dentistry	..	2	22	244	1	269
Natural sciences	18	364	293	4,819	77	5,571
Engineering, technology	2	90	264	1,714	38	2,108
Architecture	..	3	60	556	40	659
Agriculture, forestry	2	64	94	337	29	526
Veterinary science	2	15	18	187	1	223
Total—1976	**48**	**803**	**1,765**	**23,025**	**4,172**	**29,813**
1975	46	750	1,560	21,860	4,054	28,270

UNIVERSITIES: TEACHING STAFF (*a*), BY FIELD OF TEACHING, 1976

Field of teaching	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*A.C.T.*	*Aust.*
FULL-TIME STAFF								
Humanities	651	436	213	165	114	46	138	1,762
Fine arts	28	44	13	29	8	..	..	121
Social and behavioural sciences	478	220	133	85	83	29	50	1,077
Law	118	121	33	28	18	13	30	360
Education	236	153	64	51	55	15	..	573
Economics, commerce, government	461	249	129	98	74	31	55	1,096
Medicine	253	254	163	113	81	39	..	904
Dentistry	41	30	29	23	15	..	..	137
Natural sciences	1,015	573	385	290	174	90	114	2,640
Engineering, technology	499	184	113	53	54	22	..	926
Architecture	117	37	24	16	8	..	..	202
Agriculture, forestry	106	46	36	39	26	8	18	279
Veterinary science	49	36	54	..	15	..	..	154
Other(*b*)	27	..	42	..	..	1	..	70
Total—1976	*4,079*	*2,381*	*1,430*	*987*	*724*	*293*	*405*	*10,299*
1975	3,950	2,346	1,360	945	662	280	402	9,943
PART-TIME STAFF (full-time equivalent units)(*c*)								
Humanities	38	20	9	6	6	1	7	86
Fine arts	3	8	2	4	3	..	..	20
Social and behavioural sciences	38	17	5	4	9	1	2	75
Law	8	12	1	2	3	1	3	29
Education	49	17	4	2	8	2	..	81
Economics, commerce, government	34	22	3	4	5	1	1	71
Medicine	97	83	29	9	24	1	..	243
Dentistry	16	9	7	17	9	..	..	58
Natural sciences	132	117	10	52	33	8	12	365
Engineering, technology	45	30	5	7	4	1	..	92
Architecture	25	8	4	3	4	..	..	44
Agriculture, forestry	8	3	..	..	2	1	2	16
Veterinary science	3	1	2	..	..	..	..	6
Other(*b*)	9	..	8	..	..	..	..	16
Total—1976	*504*	*348*	*87*	*111*	*109*	*16*	*27*	*1,203*
1975	550	304	119	98	91	20	28	1,210

UNIVERSITIES: TEACHING STAFF(*a*), BY FIELD OF TEACHING, 1976—*continued*

Field of teaching	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*A.C.T.*	*Aust.*
ALL STAFF (full-time equivalent units)								
Humanities	689	456	222	171	120	47	145	1,848
Fine arts	31	52	15	33	11	..	..	141
Social and behavioural sciences	516	237	138	89	92	30	52	1,152
Law	126	133	34	30	21	14	33	389
Education	285	170	68	53	63	17	..	654
Economics, commerce, government	495	271	132	102	79	32	56	1,167
Medicine	350	337	192	122	105	40	..	1,147
Dentistry	57	39	36	40	24	..	..	195
Natural sciences	1,147	690	395	342	207	98	126	3,005
Engineering, technology	544	214	118	60	58	23	..	1,018
Architecture	142	45	28	19	12	..	..	246
Agriculture, forestry	114	49	36	39	28	9	20	295
Veterinary science	52	37	56	..	15	..	..	160
Other(*b*)	36	..	50	..	..	1	..	86
Total—1976	4,584	2,729	1,517	1,098	833	309	432	11,501
1975	4,499	2,650	1,479	1,043	753	299	430	11,153

(*a*) Excludes research only staff. (*b*) Includes staff teaching in the field of general studies and also a small number of staff unallocated to field of teaching. (*c*) The conversion of part-time staff to equivalent full-time units is made on the following basis: lecturer—250 hours per annum; and tutor/demonstrator—700 hours per annum.

Overseas students

The following table shows the number of private students and sponsored overseas students and trainees in Australia at 30 June 1977. The Department of Immigration and Ethnic Affairs and the Department of Education prepare statistics of overseas students admitted under the *Private Overseas Student Program*. The statistics in the table below exclude practical experience and specialised trainees, exchange students and students not currently undertaking study. Further details on sponsored overseas students and trainees in Australia are available from publications issued by the Australian Development Assistance Bureau within the Department of Foreign Affairs.

OVERSEAS STUDENTS: NUMBER OF PRIVATE STUDENTS AND SPONSORED STUDENTS AND TRAINEES BY LAST PLACE OF RESIDENCE, AS AT 30 JUNE 1977

		Sponsored students and trainees—				
Last place of residence	*Private students (a)*	*Colombo Plan*	*Commonwealth Co-operation in Education*	*Home government*	*Other*	*Total*
Europe	209	..	2	..	..	2
Africa	99	..	74	18	152	244
America	126	..	13	3	12	28
Asia—						
Burma	3	33	..	..	2	35
Cambodia	2	15	..	..	..	15
China—						
Excluding Taiwan Province	..	..	..	..	..	..
Taiwan Province only	19	..	..	..	..	..
Hong Kong	716	..	4	8	2	14
India	122	17	12	..	3	32
Indonesia	671	192	..	2	33	227
Japan	172	..	..	..	..	..
Laos	8	79	..	..	..	79
Malaysia	3,888	280	5	56	19	360
Pakistan	36	49	..	..	3	52
Philippines	128	52	..	..	12	64
Singapore	396	151	1	1	10	163
Sri Lanka	65	63	6	..	6	75
Thailand	375	207	..	..	14	221
Viet Nam	16	129	..	..	56	185
Other Asia	99	207	12	4	17	240
Total Asia	*6,716*	*1,474*	*40*	*71*	*177*	*1,762*

OVERSEAS STUDENTS: NUMBER OF PRIVATE STUDENTS AND SPONSORED STUDENTS AND TRAINEES BY LAST PLACE OF RESIDENCE, AS AT 30 JUNE 1977—*continued*

		Sponsored students and trainees				
Last place of residence	*Private students (a)*	*Colombo Plan*	*Common-wealth Co-operation in Education*	*Home govern-ment*	*Other*	*Total*
Oceania—						
Fiji	206	. .	29	4	29	62
Nauru	53	. .	. .	. .	. .	. .
New Caledonia	27	. .	. .	. .	. .	. .
Papua New Guinea	93	. .	. .	4	135	139
Solomon Islands	39	. .	7	. .	8	15
Tonga	38	. .	15	1	32	48
Other Oceania	37	. .	18	. .	29	47
Total Oceania	*493*	. .	*69*	*9*	*233*	*311*
Total Overseas Students	**(*b*)7,653**	**1,474**	**198**	**101**	**574**	**2,347**

(*a*) Excludes practical experience and specialised trainees, exchange students and students not currently undertaking study. (*b*) Includes ten students for whom last place of residence was not stated.

STUDENT ASSISTANCE SCHEMES FUNDED BY THE DEPARTMENT OF EDUCATION

Scheme	*Number of students 1976*	*Expenditure ($'000) 1975–76*
Postgraduate Awards(*a*)	2,230	7,782
Tertiary Education Assistance(*a*)	86,472	109,625
Technical Scholarships(*a*)	115	31
Pre-school Teacher Education(*a*)	2,431	3,461
Postgraduate Awards—Social Work(*a*)	22	252
Senior Secondary Scholarships(*a*)	228	1,120
Secondary Allowances(*b*)	15,356	5,601
Adult Secondary Education Assistance(*a*)	2,071	3,228
Aboriginal Secondary Grants(*a*)	12,469	8,621
Aboriginal Study Grants(*b*)	2,253	1,719
Aboriginal Study Grants—Overseas(*b*)	10	53
Assistance for Isolated Children(*b*)	18,729	10,398
Non-State Tertiary Institutions	n.a.	2,655
Overseas Study Fellowships in Recreation(*b*)	14	167
Overseas Management Fellowships(*b*)	17	135
Commonwealth Teaching Service Scholarships(*a*)	616	1,123
Other(*a*)	42	39

(*a*) For this scheme, the 'number of students' represents students receiving benefits at 30 June each year. (*b*) For this scheme the 'number of students' represents students receiving benefits at some time during the year.

Expenditure on education

The statistics in this section are intended to provide information on the extent and direction of both government and private effort in the field of education in recent years. They have been compiled in accordance with national accounting concepts. For explanation of the relevant national accounting concepts, reference should be made to *Australian National Accounts: National Income and Expenditure*, 1975–76 (5204.0), and also to *Public Authority Finance: Federal Authorities*, 1976–77 (5502.0), and *Public Authority Finance: States and Local Authorities*, 1974–75 (5504.0), from which figures included in this section have also been taken.

The emphasis given in this section to the outlays of the public sector reflects in part the relative importance of that sector in the provision of education services, but it is also a reflection of the lack of detailed information relating to educational activities in the private sector. Information is given, however, to show the order of magnitude of private sector spending, and also to show aggregate demand for education services and facilities.

Total expenditure on education

Total expenditure on education can be measured by adding to the outlay of the public sector the final expenditure on education which the private sector finances from its own resources or, alternatively, by adding together the final expenditures of both sectors (i.e. setting out the public authority transfers and any (net) transactions in existing fixed assets).

The figure derived for total expenditure on education can be regarded as a measure of the aggregate supply of education services and facilities and can therefore be related to the supply of goods and services available from domestic production (i.e. gross domestic product). Final consumption expenditure and capital expenditure on education, by sector, can also be related to the gross domestic product. In addition, total expenditure on education can be related, by financing sector, to the gross domestic product. These relationships are shown in the following table.

AUSTRALIA: EXPENDITURE ON EDUCATION

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
	$m	$m	$m	$m	$m
Public sector—					
Final consumption expenditure	1,212	1,447	1,891	2,747	3,389
Expenditure on new fixed assets	285	324	378	650	694
Final expenditure(1)	*1,498*	*1,771*	*2,270*	*3,397*	*4,083*
Transfers to the private sector and expenditure on existing fixed assets (net)	170	216	256	331	409
Outlay	*1,668*	*1,987*	*2,526*	*3,728*	*4,492*
Private sector—					
Final consumption expenditure	196	214	208	200	218
Expenditure on new fixed assets	41	38	43	74	87
Final expenditure(2)	*237*	*252*	*251*	*274*	*305*
Total expenditure on education (1) +(2)	**1,735**	**2,023**	**2,521**	**3,671**	**4,388**
Gross domestic product	**36,723**	**41,962**	**50,805**	**60,149**	**70,825**
	per cent	per cent	per cent	per cent	per cent
Expenditure on education as percentage of Gross domestic product—					
Final consumption expenditure—					
Public	3.3	3.4	3.7	4.6	4.8
Private	0.5	0.5	0.4	0.3	0.3
Expenditure on new fixed assets—					
Public	0.8	0.8	0.7	1.1	1.0
Private	0.1	0.1	0.1	0.1	0.1
Total expenditure	**4.7**	**4.8**	**5.0**	**6.1**	**6.2**

Private sector

Final expenditure on education by the private sector consists of private final consumption expenditure on education services, and expenditure on new fixed assets—mainly by private non-profit organisations and financed in part by the grant from public authorities for private capital expenditure. These grants are treated as transfers rather than final expenditure of public authorities as with the current grants, and are recorded as a source of funds for capital formation in the national capital account. Private final consumption expenditure on education services is an estimate of fees paid by persons to government schools (mainly technical and agricultural colleges), fees and gifts to universities and school fees (other than boarding fees) paid to non-government schools, business colleges, etc. Expenditure on such items as school books, uniforms, etc., and expenditure by parents associations on school equipment is not included, being treated in the Australian National Accounts as private final consumption expenditure on other goods and services (such as clothing, books, household durables, etc.). Private gross fixed capital expenditure in the field of education is estimated from statistics of the value of work done on new building and major additions to buildings of private educational institutions.

Public sector

The statistics which follow form part of a comprehensive statistical program to reclassify the transactions recorded in the 'conventional' accounts of all public authorities into a national accounting presentation. As part of this program, the outlay of public authorities is classified by *function* so as to reveal the broad purposes for which the public authorities undertake expenditure programs. These statistics relate to those outlays which have been identified as being primarily designed to serve the purposes of 'education', broadly as defined in the United Nations System of National Accounts. Included, therefore, are outlays on administration and regulation of school systems and institutions of higher learning and educational research; on provision, inspection and support of primary and secondary schools, colleges and universities, technical training institutions, schools for the handicapped, adult education facilities, pre-school centres, etc.; on scholarships, etc.; and on subsidiary services such as transportation of school children and fare concessions. Expenditures on school medical and dental services and provision of free milk for school-children are not included, as these are regarded as primarily serving the purpose of health.

Apart from giving emphasis to the broad purposes of public sector outlays, a national accounting presentation of the transactions of public authorities is also designed to facilitate the study of their impact on the rest of the economy. In the following tables the outlays of the public authorities engaged in providing education services or financing their provision by other bodies, public or private, have accordingly been broken into broad categories of final expenditure on goods and services (i.e. final consumption expenditure, and expenditure on new fixed assets); capital financing items (e.g. net expenditure on existing assets); transfers to the private sector (cash benefits, grants for private capital expenditure) which become a source of finance for that sector's own final expenditures; and transfers between public authorities (Commonwealth Government grants to the States).

Detailed analyses have not been prepared of the accounts of all public authorities providing or financing education services, but methods of analysis have been adopted which reflect the net effect of the transactions of authorities not fully analysed (such as the State universities). Private non-profit organisations are covered by recording their final consumption expenditure as final expenditure by public authorities and persons, i.e. the current grants to these organisations by public authorities are treated as public authorities' final expenditure and fees, donations, etc. paid to them by persons are included in private final consumption expenditure. Current outlay of non-profit organisations is therefore covered, being approximately equal to their income from grants and fees. For reasons of practicality, grants for capital expenditure by public authorities to private non-profit organisations are treated as transfers, so that the capital expenditure of these organisations is wholly recorded in the private sector.

All public authorities

The outlay on education by all public authorities consists of the final expenditure on goods and services of the Commonwealth Government and State authorities and transfers by these authorities to the private sector. These figures are shown in the following table, and are related to the total outlay (on all functions) by all public authorities in order to give an indication of the share of government resources devoted to education.

ALL PUBLIC AUTHORITIES: OUTLAY ON EDUCATION

($ million)

	1971–72	1972–73	1973–74	1974–75	1975–76
Federal Authorities—					
Final consumption expenditure	63.9	79.2	109.4	167.4	199.3
Cash benefits to persons	54.3	74.0	93.8	124.3	162.5
Grants for private capital purposes	1.3	1.3	2.4	7.7	10.5
Expenditure on new fixed assets	25.0	30.1	32.1	45.1	72.9
Expenditure on existing fixed assets (net)	−0.4	−0.5	0.8	0.3	0.1
Grants to States—					
Current	118.9	153.9	433.5	910.8	1,135.5
Capital	86.0	105.6	189.1	415.5	319.2
Grants to local government authorities	..	..	0.3	2.4	6.4
Total Federal	*348.9*	*443.5*	*861.5*	*1,673.6*	*1,906.5*
State authorities—					
Final consumption expenditure	1,146.6	1,365.8	1,778.9	2,575.2	3,183.5
Cash benefits to persons	96.9	115.6	127.0	147.1	175.2
Grants for private capital purposes	7.7	8.5	13.7	31.7	33.0
Expenditure on new fixed assets	260.0	293.6	345.7	603.1	616.8
Expenditure on existing fixed assets (net)	11.2	16.5	18.6	19.1	27.0
Total State	*1,522.3*	*1,800.1*	*2,283.9*	*3,376.1*	*4,035.5*
Less Grants from the Commonwealth Government for educational purposes	204.9	259.4	622.5	1,326.3	1,454.8
Outlay financed from States' own resources and from non-specific Commonwealth Government grants	1,317.4	1,540.7	1,661.4	2,049.8	2,580.7
Local authorities—					
Final consumption expenditure	1.6	2.0	2.9	4.6	6.6
Expenditure on new fixed assets	0.4	0.3	0.7	1.9	4.2
Total local	*2.1*	*2.3*	*3.6*	*6.5*	*10.8*
Less Grants from Commonwealth Government for education purposes	..	..	0.3	2.4	6.4
Outlay financed from local authorities own resources	2.1	2.3	3.3	4.1	4.4
Total outlay on education	**1,668.4**	**1,986.5**	**2,526.2**	**3,727.5**	**4,491.6**
Total outlay on all purposes	**12,026.2**	**13,391.5**	**16,196.2**	**22,852.6**	**27,521.8**
Outlay on education as percentage of total outlay	per cent 13.9	per cent 14.8	per cent 15.6	per cent 16.3	per cent 16.3

Federal Authorities

Details of outlay on education by authorities of the Commonwealth Government are given in the following table.

FEDERAL AUTHORITIES: OUTLAY ON EDUCATION

($ million)

	1971-72	1972-73	1973-74	1974-75	1975-76
General administration, regulation and research—					
Department of Education—					
Salaries, etc., n.e.c.	5.4	6.2	8.8	14.0	17.4
Administration expenses, n.e.c.	1.7	2.1	3.4	5.6	7.0
Building and works, office equipment, etc.	0.3	5.7	0.2	0.2	0.2
Grants to the States—					
Research and development	0.2	0.3	0.4	0.8	1.1
Other	0.7	0.3	0.4	..	0.1
Total general administration, etc.	*8.4*	*14.6*	*13.1*	*20.6*	*25.8*
Transportation of students—					
School bus service—					
Australian Capital Territory	0.5	0.6	0.8	0.9	1.4
Northern Territory	0.3	0.4	0.4	0.6	0.9
Total transportation	*0.8*	*1.0*	*1.2*	*1.5*	*2.3*

FEDERAL AUTHORITIES: OUTLAY ON EDUCATION—*continued*

($ million)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Primary and secondary education—					
Schools Commission	..	..	0.5	2.1	2.8
Education services—					
Australian Capital Territory	15.6	19.8	26.7	43.0	61.0
Northern Territory	12.3	9.6	14.6	20.0	33.6
School broadcasts	1.1	1.2	1.5	1.9	2.0
Student assistance	7.1	8.8	11.9	8.6	6.8
Child migrant education program	0.5	1.1	2.9	3.7	3.9
Assistance to isolated children	..	2.6	8.2	9.5	10.4
Grants to independent schools—					
Australian Capital Territory	2.7	3.0	3.6	7.8	8.9
Northern Territory	0.3	0.4	0.6	1.1	1.3
Grants to the States—					
Independent schools—Recurrent grants	29.6	41.0	55.2	101.7	123.6
Independent schools—Capital grants	6.6	6.8	15.0	28.4	28.7
Government schools—Recurrent grants	..	..	26.7	117.9	186.7
Government schools—Capital grants	20.6	26.2	61.0	170.0	113.8
Child migrant education	2.8	4.0	7.0	11.3	9.0
Schools—joint programs	..	..	3.7	16.0	22.7
Other	0.1	0.1	0.3	0.4	0.4
Total primary and secondary	*99.4*	*124.7*	*239.5*	*543.5*	*615.7*
Vocational Training—					
Commission on Technical and Further Education	..	..	..	..	0.6
Canberra School of Music	0.1	0.2	0.3	0.6	0.7
Canberra Technical College	1.2	1.5	3.5	5.7	8.6
Darwin Community College	..	2.6	3.2	3.4	5.6
Student assistance	1.0	1.0	0.5	0.1	..
Technical and Further Education—					
Apprentice training	..	..	..	0.5	0.6
Recurrent grants	..	..	10.3	24.6	40.1
Other Capital grants	7.4	13.0	18.4	19.9	24.0
Other	..	..	..	..	1.2
Total vocational training	*9.8*	*18.3*	*36.2*	*54.8*	*81.4*
University education—					
Australian Universities Commission	0.3	0.3	0.5	0.6	0.7
Australian National University—					
Student assistance	1.2	1.4	1.3	1.4	1.9
Other	31.5	36.3	41.2	57.6	57.4
Student assistance—					
Undergraduate	28.7	37.3	29.9	39.4	53.6
Postgraduate	5.9	6.7	7.4	8.0	7.7
Grants to Australian National University residential colleges	0.1	..	0.1	0.1	0.1
School of Public Health and Tropical Medicine (Sydney University)	1.0	0.9	1.3	1.7	1.9
Grants to the States—Universities	90.6	107.3	249.0	444.0	475.2
Other	0.4	..	..	0.1	0.3
Total university	*159.3*	*190.3*	*330.8*	*553.0*	*598.7*
Other higher education—					
Australian Commission on Advanced Education	0.1	0.4	0.6	0.8	0.7
Australian Film and Television School	..	0.2	0.7	3.2	3.6
Canberra College of Advanced Education	6.1	6.2	10.4	11.5	12.3
Canberra School of Music	..	..	0.6	1.2	2.3
Student assistance	3.6	6.7	22.3	41.8	61.9
Commonwealth Teaching Service scholarships	0.1	0.4	0.7	1.1	1.1
Grants to the States—					
Colleges of Advanced Education	34.0	41.2	164.9	349.2	373.5
Teacher training colleges	11.2	16.4			
Pre-school teacher training colleges	0.6	0.4			
Pre-school teaching scholarships	..	0.1			
Total other higher education	*55.7*	*71.9*	*200.3*	*408.6*	*455.5*
Other education programs—					
Aboriginal education—					
Study grants	0.5	0.6	0.9	1.4	1.8
Secondary grants	2.5	4.3	6.1	7.2	8.6
Grants to private non-profit organisations	0.4	0.5	1.2	3.7	3.9
Grants to the States	1.2	2.9	4.4	4.6	6.9
Other	3.2	6.2	8.2	14.4	22.3
Soldiers' children education scheme	3.6	3.6	3.5	3.7	3.6
Migrant education programs	3.0	3.1	4.3	6.0	8.2
Pre-school child care programs—					
Grants to States and local authorities	..	..	7.0	40.0	55.1
Other	1.1	1.5	3.8	9.1	12.8
Adult education programs	..	..	0.2	1.0	3.2
Other	..	..	1.0	0.5	0.6
Total other programs	*15.6*	*22.7*	*40.5*	*91.6*	*127.0*
Total outlay on education	**348.9**	**443.5**	**861.5**	**1,673.6**	**1,906.5**
of which—					
Current outlay	238.4	308.4	639.1	1,210.4	1,508.6
Capital outlay	110.5	135.2	222.4	463.1	397.9
Total outlay on all purposes	**8,629.6**	**9,741.7**	**11,907.8**	**17,360.5**	**21,440.8**
	per cent	per cent	per cent	per cent	per cent
Outlay on education as a percentage of total outlay	4.0	4.6	7.2	9.6	8.9

As may be seen from the table, Commonwealth Government outlays are directed largely towards financing outlays on education by the States and the private sector. Direct expenditure by the Commonwealth Government relates mainly to the costs of administering its support programs and its own educational research activities, the provision of education services in the internal territories, expenditures of statutory bodies (i.e. the Australian National University, the Canberra College of Advanced Education, and the Australian Broadcasting Commission), expenditure on the education of Aboriginals by the Northern Territory administration, and the costs of the child migrant education program.

FEDERAL AUTHORITIES: EDUCATION CASH BENEFITS TO PERSONS
($'000)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Primary and secondary education—					
Student assistance	6,924	8,663	11,895	8,599	6,721
Australian Capital Territory and Northern Territory scholarships and allowances	193	183	53	46	92
Assistance to isolated children	..	2,588	8,188	9,539	10,398
Total	*7,117*	*11,434*	*20,136*	*18,184*	*17,211*
Vocational training—					
Student assistance	1,048	1,008	516	128	31
University education—					
Australian National University scholarships	1,295	1,437	1,178	1,326	1,787
Student assistance—					
post-graduate	5,888	6,671	7,461	8,143	7,782
under-graduate	28,127	36,827	29,564	38,862	52,948
Australian Agricultural Council scholarships	54	59	60	71	96
Wool research studentships	334	267	236	234	268
Forestry scholarships	69	76	80	89	94
Other	12	11	18	84	157
Total	*35,779*	*45,348*	*38,597*	*48,808*	*63,132*
Other higher education—					
Student assistance	3,552	5,397	20,558	37,480	55,802
Teaching scholarships at Canberra College of Advanced Education	29	41	25	..	..
Commonwealth Teaching Service scholarships	109	364	697	1,079	1,123
Pre-school teaching scholarships	..	1,288	1,755	2,648	3,461
Non government institutions-fees	..	..	..	1,615	2,655
Other	..	..	..	12	18
Total	*3,690*	*7,090*	*23,035*	*42,834*	*63,059*
Other education programs—					
Aboriginal study grants	474	631	905	1,403	1,719
Aboriginal secondary grants	2,536	4,267	6,093	7,197	8,621
Soldiers' children education scheme	3,625	3,573	3,460	3,682	3,553
Adult secondary education assistance	..	..	..	759	3,228
Assistance to Vietnamese and Cambodian students	..	..	..	83	213
Other	12	77	14	48	76
Migrant education services	413	608	1,008	1,176	1,612
Total	*7,060*	*9,156*	*11,480*	*14,348*	*19,022*
Total education	**54,694**	**74,036**	**93,764**	**124,303**	**162,455**

Outlay on education in the internal territories

As mentioned previously, the Commonwealth Government is responsible for the provision of education services in the Australian Capital Territory and the Northern Territory. Details of Commonwealth Government outlay on education in the Territories are given below; further information may be found in Chapter 27, The Territories of Australia.

FEDERAL AUTHORITIES: OUTLAY ON EDUCATION IN THE INTERNAL TERRITORIES, 1975–76
($'000)

Australian Capital Territory	
Current outlay—	
Government schools—	
Pre-school education and training	1,783
Payment to N.S.W. Department of Education	454
School transport	1,419
School cleaning	2,321
Fuel, light, power, etc.	677
School supplies and subsidies	1,270
Textbook allowances to students in secondary schools	163
Repairs and maintenance	869
Incidental and other expenditure	1,030
Non-government schools assistance—	
Student allowances	4,447
Textbook allowances	65
Library grants and subsidies	20
Interest subsidy	634
Approved capital programs(*a*)	3,691
Educational services—salaries, etc.	35,051
Canberra Technical College	4,969
School of Music	537
Counsellor training program	. .
Secondary school bursaries(*b*)	. .
Total	*59,400*
Less Fees—technical and other education	106
Total	*59,294*
Canberra College of Advanced Education	10,238
Total current outlay	*69,532*
Capital outlay—	
Government schools and colleges—	
By National Capital Development Commission—	
Pre-schools	558
Primary schools	5,979
Secondary schools	13,728
Canberra Technical College	3,484
Other educational buildings	1,409
By Department of Works—	
Buildings and works	2
Furniture and fittings	1,067
Plant and equipment	1,589
Canberra College of Advanced Education	3,050
Total capital outlay	*30,866*
Total outlay(*c*)	**100,398**

Northern Territory	
Current outlay—	
Government schools—	
Pre-school education and training	n.a.
Payment to S.A. Department of Education	198
School transport	924
School cleaning	822
Fuel, light, power, etc.	532
School supplies and subsidies	816
Repairs and maintenance	716
Incidental and other expenditure	2,390
Non-government schools—assistance—	
Approved capital programs(*a*)	522
Interest subsidy	100
Other assistance	636
Educational services—salaries, etc.	18,135
Darwin Community College	4,594
Aboriginal education	11,164
Scholarships, boarding and travelling allowances(*b*)	92
Total	*41,641*
Less Fees—technical and other education	131
Total current outlay	*41,510*
Capital outlay—	
Government schools—	
Buildings and works	7,362
Furniture and fittings	420
Plant and equipment	1,503
Aboriginal education	10,919
Total capital outlay	*20,204*
Total outlay	**61,714**

(*a*) Grants for private capital purposes. (*b*) Not allocable. Excludes Commonwealth secondary and technical scholarships. (*c*) Excludes the Australian National University. Commonwealth Government payments to the University in 1975–76 amounted to $61,861,000 for current purposes and $2,455,000 for capital purposes.

State and local authorities

The following table shows the outlay on education by State and local authorities, financed from their own resources (including general purpose grants from the Commonwealth Government) and from Commonwealth Government grants for educational purposes.

STATE AND LOCAL AUTHORITIES: OUTLAY ON EDUCATION

($ million)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Final consumption expenditure—					
New South Wales	408.5	476.7	615.0	893.5	1,082.1
Victoria	339.7	419.1	536.7	766.1	946.3
Queensland	132.0	166.0	221.7	323.4	417.1
South Australia	121.7	140.2	189.3	271.0	337.2
Western Australia	106.9	119.3	158.7	233.9	298.8
Tasmania	39.5	46.4	60.4	91.9	108.5
Total	*1,148.2*	*1,367.8*	*1,781.8*	*2,579.9*	*3,190.1*
Expenditure on new fixed assets—					
New South Wales	87.0	88.9	107.8	202.5	223.0
Victoria	75.3	86.9	100.5	170.9	170.4
Queensland	34.9	37.8	48.0	85.8	74.1
South Australia	27.8	37.9	41.4	69.2	66.7
Western Australia	22.8	25.9	32.3	53.3	54.5
Tasmania	12.7	16.6	16.4	23.2	32.4
Total	*260.4*	*294.0*	*346.3*	*604.9*	*621.1*
Expenditure on existing fixed assets (net)	11.2	16.5	18.6	19.1	27.0
Cash benefits to persons	96.9	115.6	127.0	147.1	175.2
Grants for private capital purposes	7.7	8.5	13.7	31.7	33.0
Total outlay on education	**1,524.4**	**1,802.4**	**2,287.5**	**3,382.6**	**4,046.3**
of which—					
New South Wales	541.1	620.0	785.4	1,172.3	1,400.7
Victoria	446.6	547.5	684.8	994.6	1,183.2
Queensland	186.1	226.0	296.5	444.5	535.5
South Australia	158.6	188.2	241.7	354.1	416.6
Western Australia	136.1	153.9	198.4	297.5	363.1
Tasmania	55.8	66.7	80.6	119.7	147.2

Specific grants to the States for educational purposes

Financial assistance to the States specifically for education purposes constitutes the major item of outlay on education by the Commonwealth Government. The following table summarises the allocation of the various categories of grants to the States for recent years. Subsequent tables show the allocation of these specific purpose grants to individual States for the same period.

GRANTS TO STATES FOR EDUCATIONAL PURPOSES
($'000)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
GRANTS FOR CURRENT PURPOSES					
Schools	29,594	40,979	85,662	234,579	331,884
Technical education	. .	. .	10,268	24,622	40,127
Colleges of Advanced Education	18,372	26,655	124,808	239,249	286,766
Universities	67,596	80,826	200,042	377,990	426,389
Aboriginal education	347	1,167	2,174	3,367	4,978
Child migrant education	2,778	3,956	6,014	9,845	7,370
Child care and pre-school education	. .	. .	4,096	20,377	36,973
Educational research	236	275	406	786	1,062
Total	*118,923*	*153,858*	*433,470*	*910,815*	*1,135,548*
GRANTS FOR CAPITAL PURPOSES					
Schools	27,264	33,019	75,976	199,368	143,631
Technical education	7,411	12,976	18,381	20,375	24,600
Colleges of Advanced Education	27,425	31,390	40,112	109,916	86,753
Universities	23,002	26,464	48,966	65,990	48,827
Aboriginal education	867	1,720	2,218	1,224	1,966
Child migrant education	. .	. .	995	1,478	1,670
Child care and pre-school education	. .	. .	2,416	17,123	11,797
Total	*85,969*	*105,569*	*189,064*	*415,474*	*319,244*
TOTAL GRANTS					
Schools	56,858	73,998	161,638	433,947	475,515
Technical education	7,411	12,976	28,649	44,997	64,727
Colleges of Advanced Education	45,797	58,045	164,920	349,165	373,519
Universities	90,598	107,290	249,008	443,980	475,216
Aboriginal education	1,214	2,887	4,392	4,591	6,944
Child migrant education	2,778	3,956	7,009	11,323	9,040
Child care and pre-school education	. .	. .	6,512	37,500	48,770
Educational research	236	275	406	786	1,062
Total	**204,892**	**259,427**	**622,534**	**1,326,289**	**1,454,792**

TOTAL GRANTS TO STATES FOR SCHOOLS

($'000)

	1971–72	1972–73	1973–74	1974–75	1975–76
Current grants—					
New South Wales	10,854	15,046	28,147	84,749	125,395
Victoria	9,655	13,337	29,125	72,112	100,354
Queensland	4,472	6,250	13,578	35,604	46,162
South Australia	1,889	2,529	6,464	19,017	27,452
Western Australia	2,064	2,903	6,389	17,184	23,194
Tasmania	660	914	1,958	5,912	9,327
Total	*29,594*	*40,979*	*85,661*	*234,579*	*331,884*
Capital grants—					
New South Wales	10,018	10,637	30,208	71,708	45,886
Victoria	7,587	9,486	18,011	58,651	49,285
Queensland	3,483	4,366	8,990	27,968	22,363
South Australia	2,629	3,805	9,430	19,160	11,056
Western Australia	2,296	3,017	6,810	15,789	10,564
Tasmania	1,251	1,708	2,527	6,092	4,477
Total	*27,264*	*33,019*	*75,976*	*199,368*	*143,631*
Total grants—					
New South Wales	20,872	25,683	58,355	156,457	171,281
Victoria	17,242	22,823	47,136	130,763	149,639
Queensland	7,955	10,616	22,568	63,572	68,525
South Australia	4,518	6,334	15,894	38,177	38,508
Western Australia	4,360	5,920	13,199	32,973	33,758
Tasmania	1,911	2,622	4,485	12,004	13,804
Total	**56,858**	**73,998**	**161,638**	**433,947**	**475,515**

TOTAL GRANTS TO STATES FOR TECHNICAL EDUCATION

($'000)

	1971–72	1972–73	1973–74	1974–75	1975–76
Current grants—					
New South Wales	..	..	5,801	10,333	17,652
Victoria	..	..	1,772	6,794	9,653
Queensland	..	..	715	2,262	4,643
South Australia	..	..	889	2,639	3,770
Western Australia	..	..	974	2,168	3,322
Tasmania	..	..	117	426	1,087
Total	..	..	*10,268*	*24,622*	*40,127*
Capital grants—					
New South Wales	2,416	5,040	6,873	5,859	8,919
Victoria	1,500	3,350	5,500	6,585	7,376
Queensland	1,238	1,910	1,945	4,073	3,334
South Australia	1,130	1,130	2,063	2,800	1.208
Western Australia	747	1,166	1,311	587	2,876
Tasmania	380	380	689	471	887
Total	*7,411*	*12,976*	*18,381*	*20,375*	*24,600*
Total grants—					
New South Wales	2,416	5,040	12,674	16,192	26,571
Victoria	1,500	3,350	7,272	13,379	17,029
Queensland	1,238	1,910	2,660	6,335	7,977
South Australia	1,130	1,130	2,952	5,439	4,978
Western Australia	747	1,166	2,285	2,755	6,198
Tasmania	380	380	806	897	1,974
Total	**7,411**	**12,976**	**28,649**	**44,997**	**64,727**

TOTAL GRANTS TO STATES FOR COLLEGES OF ADVANCED EDUCATION AND TEACHERS COLLEGES

($'000)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Current grants—					
New South Wales	3,713	5,525	28,935	62,122	69,089
Victoria	7,341	10,443	46,711	86,119	111,307
Queensland	1,860	2,906	14,438	27,230	33,999
South Australia	1,651	2,638	13,518	24,531	28,838
Western Australia	2,920	4,015	17,247	32,359	36,522
Tasmania	887	1,128	3,959	6,888	7,011
Total	*18,372*	*26,655*	*124,808*	*239,249*	*286.766*
Capital grants—					
New South Wales	7,381	9,691	7,644	41,197	23,716
Victoria	8,330	9,275	13,680	32,452	34,313
Queensland	3,776	3,806	5,078	13,438	9,181
South Australia	2,872	3,639	6,196	12,579	6,886
Western Australia	3,031	3,554	7,222	7,281	7,344
Tasmania	2,035	1,425	292	2,969	5,313
Total	*27,425*	*31,390*	*40,112*	*109,916*	*86,753*
Total grants—					
New South Wales	11,094	15,216	36,579	103,319	92,805
Victoria	15,671	19,718	60,391	118,571	145,620
Queensland	5,636	6,712	19,516	40,668	43.180
South Australia	4,523	6,277	19,714	37,110	35,724
Western Australia	5,951	7,569	24,469	39,640	43,866
Tasmania	2,922	2,553	4,251	9,857	12,324
Total	**45,797**	**58,045**	**164,920**	**349,165**	**373,519**

TOTAL GRANTS TO STATES FOR UNIVERSITIES

($'000)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Current grants—					
New South Wales	27,223	32,155	79,572	149,997	168,831
Victoria	18,586	21,896	53,468	99,798	110,717
Queensland	8,412	10,664	26,169	49,876	57,185
South Australia	6,676	7,898	19,808	38,067	43,107
Western Australia	4,594	5,683	14,610	27,978	32,891
Tasmania	2,105	2,530	6,415	12,274	13,658
Total	*67,596*	*80,826*	*200,042*	*377,990*	*426,389*
Capital grants—					
New South Wales	9,682	10,522	16,889	22,526	21,754
Victoria	6,669	7,327	14,128	17,330	9.516
Queensland	2,597	2,545	5,624	9,821	6,453
South Australia	1,818	2,697	7,050	7,320	3.421
Western Australia	1,571	2,531	4,581	7,714	5,094
Tasmania	665	842	694	1,279	2,589
Total	*23,002*	*26,464*	*48,966*	*65,990*	*48,827*
Total grants—					
New South Wales	36,905	42,677	96,461	172,523	190,585
Victoria	25,255	29,223	67,596	117,128	120,233
Queensland	11,009	13,209	31,793	59,697	63,538
South Australia	8,494	10,595	26,858	45,387	46,528
Western Australia	6,165	8,214	19,191	35,692	37,985
Tasmania	2,770	3,372	7,109	13,553	16,247
Total	**90,598**	**107,290**	**249,008**	**443,980**	**475,216**

TOTAL GRANTS TO STATES FOR ABORIGINAL EDUCATION

($'000)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Current payments—					
New South Wales	184	229	482	546	904
Victoria	83	167	275	262	212
Queensland	..	293	193	361	866
South Australia	49	279	489	614	990
Western Australia	26	193	732	1,582	1,979
Tasmania	5	6	4	3	27
Total	*347*	*1,167*	*2,174*	*3,367*	*4,978*
Capital payments—					
New South Wales	20	98	101	..	505
Victoria	..	60	..	67	87
Queensland	441	981	988	249	971
South Australia	116	156	625	108	377
Western Australia	290	425	505	799	25
Tasmania	..	..	..	..	1
Total	*867*	*1,720*	*2,218*	*1,224*	*1,966*
Total grants—					
New South Wales	204	327	583	546	1,409
Victoria	83	227	275	329	299
Queensland	441	1,274	1,181	610	1,837
South Australia	165	435	1,114	722	1,367
Western Australia	316	618	1,237	2,381	2,004
Tasmania	5	6	4	3	28
Total	**1,214**	**2,887**	**4,392**	**4,591**	**6,944**

TOTAL GRANTS TO STATES FOR CHILD MIGRANT EDUCATION

($'000)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Current grants—					
New South Wales	1,191	1,521	2,238	3,890	2,720
Victoria	1,158	1,819	2,732	4,482	3,559
Queensland	81	98	165	255	195
South Australia	169	326	587	810	514
Western Australia	150	138	157	229	233
Tasmania	28	53	135	179	149
Total	*2,778*	*3,956*	*6,014*	*9,845*	*7,370*
Capital Grants—					
New South Wales	..	..	90	475	405
Victoria	..	..	550	709	943
Queensland	..	..	50	106	11
South Australia	..	..	165	92	275
Western Australia	..	..	100	89	−9
Tasmania	..	..	40	6	45
Total	..	..	*995*	*1,478*	*1,670*
Total grants—					
New South Wales	1,191	1,521	2,328	4,365	3,125
Victoria	1,158	1,819	3,282	5,191	4,502
Queensland	81	98	215	361	206
South Australia	169	326	752	902	789
Western Australia	150	138	257	318	224
Tasmania	28	53	175	185	194
Total	**2,778**	**3,956**	**7,009**	**11,323**	**9,040**

TOTAL GRANTS TO STATES FOR RECURRENT EXPENDITURE ON EDUCATIONAL RESEARCH

($'000)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Current grants—					
New South Wales	81	91	97	151	253
Victoria	81	87	142	227	431
Queensland	59	60	109	296	190
South Australia	8	13	18	58	116
Western Australia	7	17	26	33	59
Tasmania	..	7	14	21	14
Total	**236**	**275**	**406**	**786**	**1,062**

TOTAL GRANTS TO STATES(*a*) FOR CHILD CARE AND PRE-SCHOOL EDUCATION

($'000)

	1973–74	*1974–75*	*1975–76*
Current grants—			
New South Wales	1,281	5,417	9,030
Victoria	1,226	6,660	11,452
Queensland	436	1,734	5,356
South Australia	690	3,233	5,025
Western Australia	385	2,316	4,390
Tasmania	78	1,017	1,720
Total	*4,096*	*20,377*	*36,973*
Capital grants—			
New South Wales	160	4,819	3,165
Victoria	288	2,637	1,345
Queensland	1,003	3,806	2,584
South Australia	514	2,773	1,498
Western Australia	166	1,911	1,441
Tasmania	285	1,177	1,764
Total	*2,416*	*17,123*	*11,797*
Total grants—			
New South Wales	1,441	10,236	12,195
Victoria	1,514	9,297	12,797
Queensland	1,439	5,540	7,940
South Australia	1,204	6,006	6,523
Western Australia	551	4,227	5,831
Tasmania	363	2,194	3,484
Total	**6,512**	**37,500**	**48,770**

(*a*) There were no grants to the States for this purpose prior to 1973–74.

CHAPTER 13

RURAL INDUSTRY

This chapter is divided into the following major parts:—Introduction; Sources of statistics and definitions of units; Structural statistics (provides data on the legal arrangements, size and industry class of the business organisations operating within the agricultural sector); Financial statistics (provides estimates of the financial performance of business organisations engaged in agricultural activities); Value of agricultural commodities produced and indexes of quantum and average unit gross values; Apparent consumption of foodstuffs and nutrients; Land tenure and land utilisation; Crop statistics; Livestock statistics; Livestock products; Rural improvements and employment.

Introduction

The development of Australian rural industries has been determined by interacting factors such as profitable markets, the opening up of new land (including the development of transport facilities) and technical and scientific achievements. Subsistence farming, recurring gluts, low prices and losses to farmers were gradually overcome by the development of an export trade. Profitable overseas markets for merino wool and wheat, and the introduction of storage and refrigerated shipping for the dairying and meat industry combined to make the agricultural sector Australia's main export earner. Until the late 1950's, agricultural products comprised more than 80 per cent of the value of Australia's exports. Since then, the proportion of Australia's exports coming from the agricultural sector has declined markedly; the value of agricultural products exported was only 44 per cent of the total value of exports in 1975–76.

However, this decline in importance has been due not to a decline in agricultural activity but rather to an increase in the quantity and values of the exports of the mining and manufacturing sectors. In fact, the agricultural sector experienced an increase in total output over that period. The index of quantum of agricultural production and output (*see* page 292) illustrates this by displaying a steady increase from approximately 70 in 1959–60 to 114 in 1975–76.

One interesting aspect of this increase in output is that it was accompanied by a large reduction in the size of the agricultural labour force. The number of males working permanently on rural holdings, for example, decreased from 356,000 in 1955 to 244,000 in 1975, implying a large growth in productivity within the sector.

Sources of statistics and definitions of units

Agricultural Census

The major source of the statistics in this chapter is the Agricultural Census conducted at 31 March each year. This collects a wide range of information from agricultural holdings covering the physical aspects of agriculture such as area and production of crops, fertilisers used, number of livestock disposed of, etc. In conjunction with the census, certain supplementary collections are conducted in some States where this has proved expedient, e.g. where the harvesting of certain crops has not been completed by 31 March (apples, potatoes, etc.), special returns covering the crops concerned are collected after the completion of the harvest.

In the past two years the ABS has been gradually excluding from the statistics holdings whose contribution to agricultural production is small. While this has reduced the number of holdings appearing in publications, the effect on statistics of production of major commodities is minimal. Statistics of minor commodities normally associated with smaller scale operations may be affected to a greater extent.

For 1976–77, holdings have been included in the statistics where the legal entities operating these holdings had Estimated Values of Operations (EVAO) from agricultural activity of $1,500 or more. Details of the method used in the calculation of EVAO are contained in the publication *Structure of Operating Units* (7102.0).

For 1975–76 the EVAO criterion was the same as for 1976–77, but holdings with areas of 10 hectares or more were also included, even if EVAO was less than $1,500. Prior to 1975–76, all agricultural holdings with areas of one hectare or more were included. In addition, holdings of less than one hectare tended to be included where significant agricultural activity was undertaken, e.g. poultry farms, commercial market gardens and nurseries.

Integrated Agricultural Register

The Agricultural Census is one of the sources of information used to update the Integrated Agricultural Register (IAR). The IAR contains information about the area, type, legal status, level of activity and location of units engaged in agriculture, and is used for the despatch of most of the agricultural statistical collections. The IAR was orginally compiled by adding data in a special census of economic units conducted in 1974 to existing data relating to physical characteristics of agricultural holdings. Details of the structure of economic units engaged in agriculture are compiled from the IAR. These economic units, in hierarchical order, are:

Enterprise (the second level of economic unit). The enterprise is that unit comprising all operations in Australia of a single operating legal entity. (The term 'single legal entity' means a sole trader, partnership, company, trust, co-operative or estate in the private sector, or a department, local government authority or statutory authority in the government sector).

Establishment (the smallest economic unit). The establishment covers all operations carried out by one enterprise at a single physical location.

Agricultural Finance Survey (AFS)

The AFS collects detailed financial statistics from a sample of agricultural enterprises. The main purpose of the survey is to enable financial statistics related to the economic performance of the agricultural sector and its components to be made available on the same basis as statistics for other sectors of the economy.

Other Statistical Collections

The ABS conducts a number of other collections to obtain agricultural statistics. These include collections from wool brokers and dealers, livestock slaughterers and other organisations involved in the marketing and selling of agricultural commodities.

Structural statistics

The following tables provide information relating to the structure of operating units during 1975–76. Although the definitions of the operating units have been provided above, the following terminology is also used:

Industry. As set out in the *Australian Standard Industrial Classification 1969* (ASIC) (1201.0). This publication provides details of the methodology used in determining the industry class of an economic unit.

Estimated Value of Operations (EVAO). This is determined by valuing the physical crop and livestock information collected in the Agricultural Census.

A further explanation of this terminology and more detailed statistics are given in the bulletin *Agricultural Sector: Part I. Structure of Operating Units, 1975–76* (7102.0).

NUMBER OF UNITS BY TYPE OF UNIT, 1975–76

Unit	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Australia*
Agricultural establishments .	53,336	48,953	33,990	19,712	16,488	6,298	180,138
Agricultural enterprises . .	52,344	48,163	32,297	19,342	16,175	6,143	176,489

AGRICULTURAL ENTERPRISES BY INDUSTRY AND ESTIMATED VALUE OF OPERATIONS 1975-76

	Estimated value of operations ($'000)											
dustry of enterprise	*2–9*	*10–19*	*20–29*	*30–39*	*40–49*	*50–59*	*60–74*	*75–99*	*100–149*	*150–199*	*200+*	*Total*
real grains . . .	1,399	2,311	2,599	2,682	2,285	1,637	1,671	1,651	1,428	552	463	18,678
ilseeds (n.e.c.) . .	131	126	75	29	18	21	18	14	19	7	9	467
eep-cereal grains . .	895	2,724	3,672	3,561	2,877	2,152	2,273	2,060	1,639	504	398	22,755
eat cattle-cereal grains .	1,161	1,127	780	506	331	212	226	176	135	34	40	4,728
eep-meat cattle . .	3,414	3,472	2,295	1,402	835	508	518	383	300	96	83	13,306
eep	5,031	4,654	3,307	2,143	1,430	899	881	643	501	130	135	19,754
eat cattle . . .	19,733	4,915	1,872	848	513	299	276	228	187	71	132	29,074
ilk cattle . . .	4,931	11,354	6,324	2,193	919	431	282	155	72	28	23	26,712
gs	1,148	735	467	340	218	124	150	114	79	42	42	3,459
ultry	273	271	225	183	143	110	150	166	173	80	190	1,964
uit	4,041	4,310	2,449	1,197	603	351	302	228	166	66	55	13,768
getables . . .	2,191	1,770	1,047	684	424	310	275	279	198	94	124	7,396
ulti-purpose . .	155	134	85	48	47	17	20	16	6	3	3	534
gar cane . . .	143	307	678	1,212	1,032	743	867	786	557	173	111	6,609
anuts	24	53	87	84	50	39	33	26	10	3	3	412
bacco	7	54	222	278	167	93	84	71	32	9	14	1,031
tton	..	2	2	2	..	3	4	9	20	17	39	98
rseries and specialised horticultural activities (except forest nurseries)	425	305	150	140	58	37	55	47	40	17	33	1,307
griculture (n.e.c.) . .	2,962	743	290	154	85	49	42	44	35	7	26	4,437
Total	**48,064**	**39,367**	**26,626**	**17,686**	**12,035**	**8,035**	**8,127**	**7,096**	**5,597**	**1,933**	**1,923**	**176,489**

AGRICULTURAL ENTERPRISES BY INDUSTRY, LEGAL STATUS AND ESTIMATED VALUE OF OPERATIONS: 1975–76

	Legal status						
	Sole operator	*Family partnership*	*Other partnership*	*Private incorporated company*	*Public incorporated company*	*Other(a)*	*Total enterprises*
Industry of enterprise—							
Cereal grains . .	5,224	12,148	339	573	3	391	18,678
Oilseeds (n.e.c.) . .	137	310	6	9	..	5	467
Sheep-cereal grains .	5,448	15,654	412	776	10	455	22,755
Meat cattle-cereal grains	1,531	2,664	115	305	8	105	4,728
Sheep-meat cattle .	5,031	6,948	290	669	16	352	13,306
Sheep . . .	7,692	10,269	429	711	14	639	19,754
Meat cattle . .	13,246	12,949	712	1,354	41	772	29,074
Milk cattle . .	10,129	15,241	360	461	7	514	26,712
Pigs	1,311	1,950	66	81	1	50	3,459
Poultry . . .	625	1,174	41	110	4	10	1,964
Fruit . . .	5,282	7,865	203	297	10	111	13,768
Vegetables . .	2,710	4,350	131	158	6	41	7,396
Multi-purpose . .	160	344	7	12	..	11	534
Sugar cane . .	1,670	4,676	97	56	1	109	6,609
Peanuts . . .	113	281	3	6	..	9	412
Tobacco . . .	292	677	31	11	1	19	1,031
Cotton . . .	14	49	12	20	..	3	98
Nurseries and specialised horticultural activities (except forest nurseries)	470	672	51	104	2	8	1,307
Agriculture (n.e.c.) .	2,121	1,960	119	189	4	44	4,437
Total . . .	**63,206**	**100,181**	**3,424**	**5,902**	**128**	**3,648**	**176,489**
Estimated value of operations ($'000)—							
2–9 . . .	25,595	19,613	824	907	15	1,110	48,064
10–19 . . .	16,489	20,708	631	681	16	842	39,367
20–29 . . .	8,911	16,035	495	628	12	545	26,626
30–39 . . .	4,845	11,519	356	589	10	367	17,686
40–49 . . .	2,717	8,351	235	481	7	244	12,035
50–59 . . .	1,508	5,792	196	389	6	144	8,035
60–74 . . .	1,291	6,059	182	460	4	131	8,127
75–99 . . .	931	5,389	169	499	9	99	7,096
100–149 . . .	584	4,198	167	554	6	88	5,597
150–199 . . .	175	1,385	72	266	8	27	1,933
200 + . . .	160	1,132	97	448	35	51	1,923
Total, all size groups	**63,206**	**100,181**	**3,424**	**5,902**	**128**	**3,648**	**176,489**

(*a*) Includes co-operative societies, trusts and estates.

AGRICULTURAL ESTABLISHMENTS OPERATED BY AGRICULTURAL AND NON-AGRICULTURAL ENTERPRISES BY INDUSTRY OF ESTABLISHMENT: 1975-76

Industry of establishment	*Operated by agricultural enterprises*	*Operated by non-agricultural enterprises*
Cereal grains	18,750	184
Oilseeds (n.e.c.)	468	5
Sheep-cereal grains	22,854	135
Meat cattle-cereal grains	4,750	88
Sheep-meat cattle	13,443	207
Sheep	19,931	195
Meat cattle	29,472	1,060
Milk cattle	26,785	163
Pigs	3,469	96
Poultry	1,969	48
Fruit	13,802	270
Vegetables	7,406	76
Multi-purpose	540	15
Sugar cane	6,616	48
Peanuts	413	5
Tobacco	1,036	8
Cotton	99	3
Nurseries and specialised horticultural activities (except forest nurseries)	1,307	35
Agriculture (n.e.c.)	4,466	194
Total	**177,576**	**2,835**

AGRICULTURAL ESTABLISHMENTS OPERATED BY AGRICULTURAL ENTERPRISES BY INDUSTRY OF ENTERPRISE AND INDUSTRY OF ESTABLISHMENT: 1975-76

	Industry of establishment														
Industry of enterprise	*Cereals grains*	*Oil-seeds n.e.c.*	*Sheep-cereal grains*	*Meat cattle-cereal grains*	*Sheep-meat cattle*	*Sheep*	*Meat cattle*	*Milk cattle*	*Pigs*	*Poultry*	*Fruit*	*Vege-tables*	*Multi-pur-pose*	*Agri-culture n.e.c.*	*Total estab-lish-ments*
Cereal grains	18,712	..	18	2	17	15	33	3	1	..	3	1	..	4	18,809
Oilseeds (n.e.c.)	..	466	2	..	..	..	1	..	..	..	1	..	..	..	470
Sheep-cereal grains	12	..	22,794	2	15	32	20	1	..	..	3	..	..	2	22,881
Meat cattle-cereal grains	4	..	5	4,729	9	10	42	2	2	..	..	1	2	2	4,808
Sheep-meat cattle	1	..	8	3	13,342	30	34	3	1	..	2	1	..	1	13,426
Sheep	4	..	12	6	39	19,819	23	2	..	..	..	..	1	3	19,909
Meat cattle	5	..	11	3	16	17	29,232	9	3	..	1	..	..	10	29,307
Milk cattle	1	1	..	3	4	4	39	26,757	1	..	2	..	2	2	26,816
Pigs	..	..	1	..	..	..	1	..	3,460	..	..	..	1	1	3,464
Poultry	3	..	1	..	..	..	6	2	1	1,969	1	..	..	..	1,983
Fruit	1	..	..	1	1	1	5	1	..	..	13,789	1	..	3	13,803
Vegetables	4	..	..	..	..	1	5	1	..	..	..	7,401	..	1	7,413
Multi-purpose	..	1	..	..	..	..	1	..	..	..	..	1	534	1	538
Agriculture (n.e.c.) (*a*)	3	..	2	1	..	2	30	4	..	..	..	..	..	13,907	13,949
Total	**18,750**	**468**	**22,854**	**4,750**	**13,443**	**19,931**	**29,472**	**26,785**	**3,469**	**1,969**	**13,802**	**7,406**	**540**	**13,937**	**177,576**

(*a*) Includes sugar cane, peanuts, tobacco, cotton, nurseries and specialised horticultural activities and agriculture, n.e.c.

Financial statistics

The following tables show the main aggregates describing the economic performance of agricultural enterprises. The initials 'S.E.—' appearing in some of the tables stand for 'standard error %' which is a measure of the sampling error resulting from the use of sampling techniques as opposed to the results which would have been obtained from a comparable complete collection. Standard errors for the 1975–76 data have not yet been calculated. A more detailed explanation of standard errors and other terms used in the tables, as well as more detailed statistics, are given in *Agricultural Sector: Part IV—Financial Statistics* (7507.0).

FINANCIAL STATISTICS, AGRICULTURAL ENTERPRISES, 1971-72 TO 1975-76

	1971–72(a)		*1972–73(a)*		*1973–74(a)*		*1974–75*		*1975–76p*	
Item	*$m*	*S.E. %*	*$m*	*S.E. %*	*$m*	*S.E. %*	*$m*	*S.E. %*	*$m*	*S.E. %*
Sales from crops	1,187.1	3	1,169.1	4	1,599.6	3	2,345.5	2	2,486.4	n.a.
Sales from livestock	1,372.4	3	1,870.1	3	2,079.8	3	1,099.7	4	1,000.4	n.a.
Sales from livestock products	1,047.2	3	1,598.2	3	1,661.5	3	1,382.7	2	1,320.3	n.a.
Turnover	3,614.7	2	4,653.1	2	5,319.3	2	4,985.8	2	4,956.2	n.a.
Purchases and selected expenses	1,822.8	2	2,094.3	2	2,550.4	2	2,278.1	2	2,291.9	n.a.
Value added	2,052.9	n.a.	2,551.5	n.a.	3,114.5	n.a.	2,897.3	2	2,717.2	n.a.
Adjusted value added	1,812.0	n.a.	2,280.4	n.a.	2,785.4	n.a.	2,576.0	3	2,340.0	n.a.
Gross operating surplus	1,508.9	n.a.	1,936.6	n.a.	2,356.9	n.a.	2,083.8	3	1,821.7	n.a.
Cash operating surplus	1,023.0	n.a.	1,731.2	n.a.	1,783.7	n.a.	1,658.7	3	1,555.3	n.a.
Total net capital expenditure	418.3	5	596.7	4	643.8	4	620.0	4	751.5	n.a.
Gross indebtedness	3,292.5	4	2,714.5	4	2,921.6	4	2,972.5	4	3,008.1	n.a.

(*a*) Not strictly comparable with later years—*see* Explanatory Notes for bulletin *Agricultural Sector: Part IV, Financial Statistics, 1974–75*(7507.0)

FINANCIAL STATISTICS, AGRICULTURAL ENTERPRISES, 1975-76*p*
($ million)

Item	*N.S.W.*	*Vic.*	*Qld.*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
Sales from crops	619.4	369.4	725.2	281.3	463.3	27.8	2,486.4
Sales from livestock	337.4	211.9	196.0	100.4	118.2	36.6	1,000.4
Sales from livestock products	403.0	341.9	140.4	149.7	232.8	52.5	1,320.3
Turnover	1,402.9	974.8	1,083.2	540.6	835.1	119.6	4,956.2
Purchases and selected expenses	716.5	468.8	439.3	222.5	381.6	63.2	2,291.9
Value added	680.8	507.9	663.1	337.9	469.5	58.0	2,717.2
Adjusted value added	549.2	421.9	595.4	305.0	419.5	48.9	2,340.0
Gross operating surplus	384.6	321.4	481.1	247.2	359.3	28.1	1,821.7
Cash operating surplus	321.5	266.6	422.6	210.0	318.3	16.3	1,555.3
Total net capital expenditure	201.5	116.0	166.7	91.9	157.8	17.5	751.5
Gross indebtedness	954.3	718.1	579.4	287.2	361.0	108.0	3,008.1

FINANCIAL STATISTICS, AGRICULTURAL ENTERPRISES, BY INDUSTRY (ASIC) (*a*): 1975-76*p*
($ million)

Item	*Cereal grains, oilseeds (n.e.c.) 0111–0112*	*Sheep–cereal grains 0113*	*Meat cattle–cereal grains 0114*	*Sheep–meat cattle 0115*	*Sheep 0116*	*Meat cattle 0117*	*Milk cattle 0118*
Sales from crops	702.3	602.4	66.5	16.5	55.2	20.2	17.3
Sales from livestock	83.3	135.7	44.1	143.8	120.4	227.9	66.7
Sales from livestock products	56.5	264.8	3.0	140.7	317.4	15.3	390.7
Turnover	858.7	1,017.1	116.3	310.4	504.3	300.7	492.6
Purchases and selected expenses	330.7	429.6	50.9	163.3	252.0	202.8	239.5
Value added	520.2	588.4	65.7	164.6	260.3	123.9	256.4
Adjusted value added	466.4	523.2	55.0	131.8	217.8	65.2	214.7
Gross operating surplus	213.1	458.7	43.5	84.7	160.8	11.6	162.3
Cash operating surplus	394.9	429.3	32.5	40.9	134.4	−47.3	125.4
Total net capital expenditure	210.5	184.4	18.7	25.9	44.8	50.1	55.4
Gross indebtedness	370.0	425.9	114.7	305.6	307.1	594.6	392.2

Item	*Pigs 0119*	*Poultry 0121–0122*	*Fruit 0131–0133*	*Vegetables 0141–0142*	*Multi-purpose farming 0150*	*Other agriculture 0161–0166*	*All industries 01*
Sales from crops	6.1	3.0	253.4	176.0	8.1	559.5	2,486.4
Sales from livestock	93.3	39.9	3.4	15.6	2.5	23.8	1,000.4
Sales from livestock products	8.0	106.3	3.5	5.4	1.4	7.2	1,320.3
Turnover	111.2	149.7	267.6	199.8	13.1	614.6	4,956.2
Purchases and selected expenses	76.4	106.7	122.6	95.0	7.5	214.9	2,291.9
Value added	38.6	43.3	145.3	105.1	4.6	400.7	2,717.2
Adjusted value added	33.4	38.0	128.7	92.6	3.7	369.5	2,340.0
Gross operating surplus	24.8	21.8	70.6	60.6	2.1	307.0	1,821.7
Cash operating surplus	16.6	18.8	64.4	50.5	2.6	292.2	1,555.3
Total net capital expenditure	10.7	10.0	28.3	25.4	2.0	85.2	751.5
Gross indebtedness	47.5	33.6	113.9	90.4	9.0	203.7	3,008.1

(*a*) Australian Standard Industrial Classification (1201.0).

Gross value of agricultural commodities produced and indexes of quantum and average unit gross values

Definitions

Gross value of commodities produced is the value placed on recorded production at the wholesale prices realised in the principal market.

Marketing costs include freight, cost of containers, commission and other charges incurred in marketing.

Local value of commodities produced (i.e. gross value of commodities produced valued at place of production) is ascertained by deducting marketing costs from the gross value.

Average unit gross values are calculated by dividing the gross value of each commodity produced by the total production of each corresponding commodity.

Indexes of quantum are the indexes of the gross value of commodities produced at constant prices, i.e. they are measures of change in value after the direct effects of price changes have been eliminated.

VALUES OF AGRICULTURAL COMMODITIES: 1975-76

	Gross production valued at principal markets	*Marketing costs*	*Local value of production*	*Indexes of Agricultural Commodities produced and output (Base year: 1968–69 = 100)*	
				Quantum	*Average unit gross value*
	$m	$m	$m		
Crops	3,249.5	395.7	2,853.8	96.7	199.6
Livestock slaughterings and other disposals	1,254.6	129.1	1,125.5	165.7	96.3
Livestock products . . .	1,679.5	149.7	1,529.8	89.2	141.0
Total agriculture . .	**6,183.7**	**674.6**	**5,509.1**	(*a*)**113.6**	(*a*)**150.1**

(*a*) Excludes seed, feed and fodder consumed or retained on farms.

Publications

Two preliminary estimates of value of commodities produced are published: *Gross Value of Agricultural Commodities Produced*, First Estimates (7501.0) and *Value of Agricultural Commodities Produced*, Second Estimates (7502.0). A final publication, *Value of Agricultural Commodities Produced* (7503.0), contains Indexes of Quantum and Average Unit Gross Value.

Indexes of Agricultural Commodities Produced

In issues of the Year Book prior to No. 60, these indexes were referred to as 'indexes of farm production'. In issue No. 60 they were referred to as 'indexes of agricultural production'. In these tables data show indexes of quantum of agricultural commodities produced, and unit value of agricultural commodities produced, by industrial group.

For further details on how these and earlier series were calculated *see* Year Book No. 61, pages 1063–65 and *Value of Agricultural Commodities Produced* (7503.0).

GROSS VALUES OF AGRICULTURAL COMMODITIES

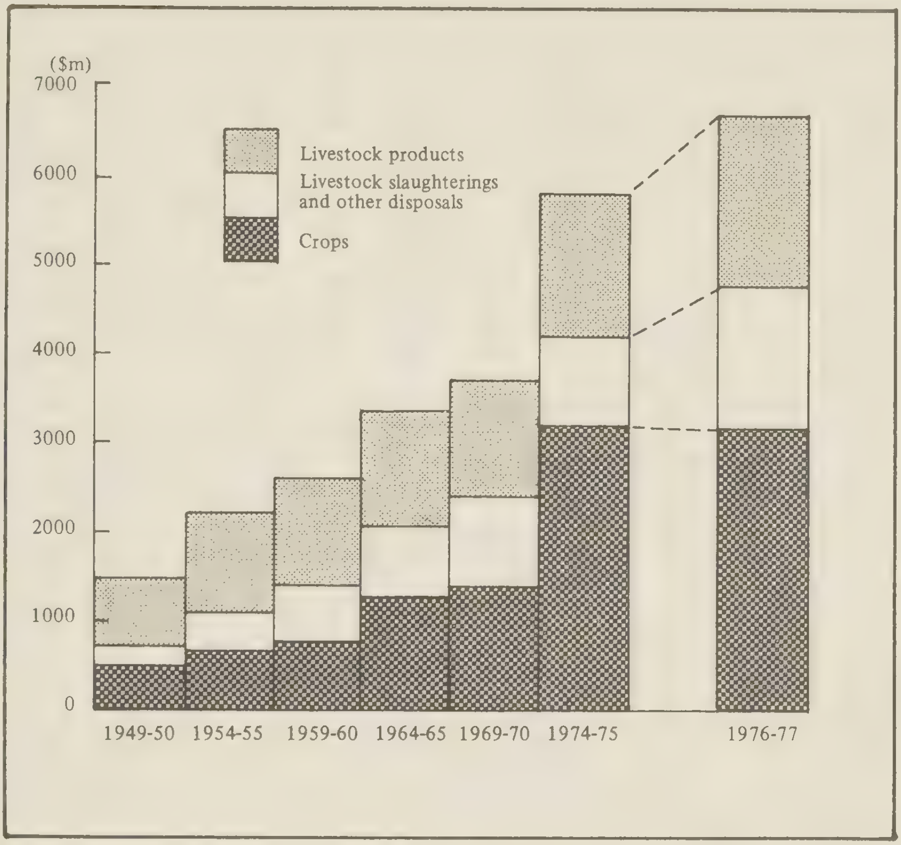


PLATE 31

GROSS VALUE OF AGRICULTURAL COMMODITIES

($ million)

	1949-50	*1954-55*	*1959-60*	*1964-65*	*1969-70*	*1972-73*	*1973-74*	*1974-75*	*1975-76*	*1976-77p*
Crops—										
Wheat for grain	297	215	276	518	531	357	1,312	1,256	1,249	1,060
Barley for grain	21	37	33	56	66	91	191	257	314	295
Sugar cane cut for crushing	36	78	87	131	148	230	219	491	436	467
Fruit	53	93	104	146	193	223	217	267	269	294
Grapevines	18	25	29	50	59	65	83	101	102	123
Vegetables	52	77	86	134	138	181	240	258	275	290
Pastures and grasses(*a*)	. .	. .	. .	. .	96	115	178	150	129	677
Other crops	67	157	206	253	223	320	419	426	476	
Total crops	*544*	*682*	*821*	*1,288*	*1,454*	*1,582*	*2,859*	*3,206*	*3,250*	*3,205*
Livestock slaughterings and other disposals(*b*)—										
Cattle and calves	113	235	375	483	628	1,022	1,069	523	709	961
Sheep and lambs	60	(*c*)151	147	175	214	306	321	178	208	300
Pigs	29	43	60	75	96	124	173	178	184	189
Poultry	15	22	29	43	70	91	133	140	153	165
Total	*217*	*451*	*612*	*776*	*1,007*	*1,542*	*1,696*	*1.019*	*1,255*	*1,616*
Livestock products—										
Wool	576	691	780	841	735	1,243	1,229	953	1,000	1,135
Dairy products	(*d*)167	(*d*)302	337	384	414	464	468	519	490	548
Eggs	52	81	90	95	115	117	148	172	179	191
Honey and beeswax	2	3	5	5	5	8	12	9	11	11
Total	*797*	*1,077*	*1,213*	*1,325*	*1,269*	*1,832*	*1,857*	*1,653*	*1,680*	*1,885*
Total agriculture	**1,558**	**2,208**	**2,646**	**3,389**	**3,730**	**4,957**	**6,412**	**5,878**	**6,184**	**6,706**

(*a*) Not recorded prior to 1969–70. (*b*) Includes adjustment for net exports of live animals. (*c*) Includes value of wool on skins, fellmongered and exported. (*d*) Includes a subsidy paid on whole milk for all processed milk products.

INDEXES OF QUANTUM OF AGRICULTURAL COMMODITIES PRODUCED AND OUTPUT(*a*)

(Base of each index: Year 1968-69 = 100)

	1966–67	*1967–68*	*1968–69*	*1969–70*	*1970–71*	*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Crops—										
Barley for grain	84.9	50.7	100.0	103.2	142.8	186.3	104.9	145.6	152.8	192.6
Oats for grain	113.6	42.0	100.0	72.9	94.3	74.6	43.0	64.7	51.1	66.7
Wheat for grain	85.7	50.8	100.0	71.2	53.2	58.0	43.2	80.3	76.6	80.9
Other grain cereals	102.9	96.9	100.0	142.0	241.0	220.7	192.0	209.1	187.1	223.7
Sugar cane(*b*)	90.8	91.2	100.0	84.7	94.4	103.6	101.2	102.9	108.8	117.3
Fruit and nuts	95.8	95.5	100.0	105.6	117.6	107.5	111.7	98.2	103.0	93.6
Grapevines	133.3	120.2	100.0	138.8	105.4	142.5	105.5	94.9	123.6	122.0
Vegetables	92.3	85.4	100.0	99.2	104.0	111.8	100.0	88.8	105.4	99.1
All other crops(*c*)	86.6	65.1	100.0	91.0	99.4	116.1	90.8	106.8	97.5	85.8
Total	*90.4*	*67.2*	*100.0*	*86.2*	*85.9*	*92.8*	*75.7*	*94.6*	*94.2*	*96.7*
Livestock slaughterings and other disposals—										
Cattle and calves(*d*)	94.3	97.0	100.0	107.7	111.7	124.4	154.7	140.7	164.8	196.9
Sheep and lambs	85.6	93.9	100.0	109.0	120.0	135.5	103.5	70.4	78.8	86.1
Pigs	87.6	92.3	100.0	107.5	112.0	119.9	145.6	130.1	108.0	107.2
Poultry	81.1	94.1	100.0	113.4	138.8	149.5	147.3	177.2	173.5	187.0
Total(e)	*91.0*	*95.7*	*100.0*	*108.3*	*115.2*	*127.9*	*143.4*	*128.5*	*143.0*	*165.7*
Livestock products—										
Wool	90.5	90.8	100.0	104.5	100.2	99.6	83.2	79.3	89.8	85.4
Milk	102.9	98.1	100.0	106.5	104.1	101.9	101.0	99.7	93.4	91.2
Eggs	96.6	106.1	100.0	105.5	116.7	113.7	110.5	105.0	106.7	105.5
Total(f)	*95.2*	*94.7*	*100.0*	*105.4*	*103.0*	*101.8*	*91.6*	*88.5*	*92.6*	*89.2*
Agricultural output(*g*)	91.5	83.6	100.0	98.5	98.3	104.9	97.6	100.9	107.3	113.6

(*a*) Indexes at value of constant price (i.e. at average unit gross value of the 3 years ended 1970–71). (*b*) Cut for crushing and planting. (*c*) Includes pastures and grasses; excludes crops for green feed and silage. (*d*) Includes dairy cattle slaughtered. (*e*) Component series based on carcass weight. (*f*) Includes honey and beeswax. (*g*) Excludes seed, feed and fodder consumed or retained on farms.

INDEXES OF AVERAGE UNIT GROSS VALUE OF AGRICULTURAL COMMODITIES PRODUCED AND OUTPUT(*a*)

(Base of each index: Year 1968-69 = 100)

	1966–67	*1967–68*	*1968–69*	*1969–70*	*1970–71*	*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Crops—										
Barley for grain	123.2	118.0	100.0	90.7	110.0	94.5	122.8	185.5	238.4	231.1
Oats for grain	124.9	138.4	100.0	77.8	97.9	85.3	124.7	175.6	198.5	198.4
Wheat for grain	109.8	117.2	100.0	101.8	103.9	109.1	112.8	224.0	225.3	210.8
Other grain cereals	83.9	90.4	100.0	95.3	87.7	85.7	124.1	169.7	169.5	175.0
Sugar cane(*b*)	96.0	95.6	100.0	112.5	117.8	128.3	145.8	136.1	288.2	237.9
Fruit and nuts	102.7	98.0	100.0	109.9	102.3	104.7	123.2	138.2	159.7	184.0
Grapevines	83.9	88.1	100.0	94.5	96.5	105.7	138.9	203.4	180.4	186.2
Vegetables	101.9	123.3	100.0	100.2	116.5	102.3	130.1	198.5	178.0	202.0
All other crops(*c*)	104.4	118.3	100.0	92.5	91.6	85.9	129.5	133.0	144.7	156.7
Total	*105.4*	*112.3*	*100.0*	*100.2*	*103.4*	*103.6*	*123.8*	*182.8*	*203.9*	*199.6*
Livestock slaughterings and other disposals—										
Cattle and calves(*d*)	100.0	98.5	100.0	104.0	102.7	102.8	117.9	135.5	56.6	64.5
Sheep and lambs	117.3	111.1	100.0	106.3	81.0	84.5	157.3	257.5	128.4	132.8
Pigs	110.4	111.7	100.0	103.0	107.9	106.8	97.8	153.1	189.6	197.9
Poultry	115.9	103.0	100.0	94.8	93.5	92.6	94.9	115.3	124.2	126.0
Total(e)	*105.8*	*102.8*	*100.0*	*103.7*	*97.9*	*98.6*	*122.5*	*161.1*	*89.6*	*96.3*
Livestock products—										
Wool	107.0	93.1	100.0	83.9	63.9	79.0	178.1	184.8	126.5	139.6
Milk	101.9	98.4	100.0	101.5	107.0	117.7	120.0	122.5	144.5	139.6
Eggs	102.9	90.1	100.0	97.6	85.6	87.6	95.4	126.5	144.6	152.1
Total(f)	*105.2*	*94.4*	*100.0*	*90.2*	*78.4*	*91.1*	*154.4*	*161.9*	*133.5*	*141.0*
Agricultural output(*g*)	**105.3**	**102.0**	**100.0**	**98.2**	**93.2**	**99.1**	**135.3**	**171.7**	**147.6**	**150.1**

For footnotes *see* previous table.

APPARENT CONSUMPTION OF FOODSTUFFS AND NUTRIENTS

APPARENT CONSUMPTION OF FOODSTUFFS PER HEAD OF POPULATION

(Kg—unless otherwise indicated)

Commodity	*Average 3 years ended—*					
	1938–39	*1948–49*	*1958–59*	*1972–73*	*1973–74*	*1974–75*
Grain products—						
Flour (including flour for bread making)	84.9	91.6	82.3	74.9	78.1	76.1
Rice, whole milled	1.8	0.4	n.a.	2.2	2.1	2.4
Breakfast foods	4.8	6.1	6.2	6.8	6.8	6.8
Total grain products	*92.5*	*98.6*	*n.a.*	*84.2*	*87.2*	*85.4*
Sugar(*a*)	50.8	56.8	53.0	50.8	55.3	53.7
Pulse and nuts—						
Peanuts (kernel equivalent)	0.4	1.1	0.8	1.2	1.0	1.2
Tree nuts (kernel equivalent)	0.4	0.6	0.7	1.0	1.1	1.1
Vegetables—						
Potatoes, white	47.1	56.3	51.7	48.6	46.3	52.5
Other root and bulb vegetables	n.a.	19.1	15.9	17.4	18.2	18.5
Tomatoes	7.1	11.5	13.0	17.2	15.1	10.2
Leafy and green vegetables	n.a.	20.5	17.9	20.3	21.3	22.0
Other vegetables	n.a.	22.3	18.6	15.1	15.2	15.6
Total (fresh equivalent weight)	*n.a.*	*129.7*	*117.1*	*118.6*	*116.1*	*118.8*
Fruit and fruit products—						
Citrus fruit(*b*)	14.5	16.9	16.1	30.6	31.8	37.4
Other fresh fruit	42.6	39.5	35.6	36.3	34.1	33.2
Jams, conserves, etc.	5.2	5.6	3.9	2.5	2.2	2.6
Dried fruit	3.8	3.9	2.8	2.3	2.4	1.8
Canned fruit	3.5	3.4	6.0	10.5	10.3	10.2
Total (fresh fruit equivalent)	*78.7*	*80.9*	*72.2*	*91.5*	*90.9*	*92.8*
Meat—						
Carcass meat (total)	101.5	84.6	97.2	82.5	73.3	97.8
Beef and veal	63.6	49 5	56.2	40.1	41.6	65.4
Mutton	27.2	20.5	23.1	15.9	9.0	9.1
Lamb	6.8	11.4	13.3	18.7	15.9	18.0
Pigmeat	3.9	3.2	4.6	7.9	6.8	5.2
Offal	3.8	4.0	5.2	5.8	4.5	5.3
Canned meat (canned weight)	1.0	1.2	1.9	2.6	2.4	2.2
Bacon and ham (cured carcass weight)	4.6	5.3	3.2	5.5	5.5	5.0
Total (carcass equivalent weight)	*118.5*	*103.0*	*112.4*	*99.2*	*88.4*	*112.7*
Poultry (dressed weight)	n.a.	n.a.	n.a.	13.3	13.9	13.9
Eggs and egg products	12.1	12.7	10.2	12.4	12.4	12.4
Equivalent number of eggs	243	255	206	218	219	219
Fish, fresh and frozen (edible weight)	2.7	2.4	2.5	3.2	3.8	2.8
Milk and milk products—						
Fluid whole milk (in litres)	106.4	138.7	128.7	122.8	120.0	108.9
Condensed, concentrated and evaporated milk	2.0	3.4	4.7	4.5	4.1	4.2
Powdered milk	1.2	1.8	2.2	6.0	5.0	5.4
Infants and invalids' food	0.5	0.6	1.0	1.4	1.5	2.2
Cheese	2.0	2.5	2.6	5.1	5.3	5.2
Oils and fats—						
Butter	14.9	11.2	12.3	8.3	7.9	7.3
Margarine—Table	0.4	0.4	n.a.	1.6	1.8	2.2
Other	1.8	2.4	2.2	4.1	4.1	3.9
Beverages—						
Tea	3.1	2.9	2.7	2.1	2.0	2.0
Coffee(*c*)	0.3	0.5	0.6	1.3	1.4	1.2
Aerated and carbonated waters (in litres)	n.a.	n.a.	n.a.	65.7	64.4	60.6
Beer (in litres)	53.2	76.8	103.2	131.5	141.3	142.7
Wine (in litres)	2.7	5.9	5.0	9.9	11.2	12.5
Spirits (in litres alcohol)	0.5	0.8	0.8	1.3	1.3	1.2

(*a*) In terms of refined sugar; includes the sugar content of manufactured products consumed. (*b*) Includes fresh equivalent of manufactured products. (*c*) Coffee and coffee products in terms of processed whole or ground pure coffee.

Apparent consumption

Estimates of consumption in Australia are compiled by deducting net exports from the sum of production and imports and allowing for recorded movement in stocks of the respective commodities. Consumption of foodstuffs is measured in general at 'producer' level and, as a result, no allowance is made for wastage before they are consumed. It is believed that more efficient distribution and storage methods in recent years have cut down wastage. Furthermore, it is likely that many of the foodstuffs are being supplemented by householders' self-supplies over and above the broad estimate already made.

The estimates of consumption per head of population have been derived by dividing the total apparent consumption of each commodity or commodity group in a given year by the mean population of Australia in the same period.

More detailed information on the consumption of foodstuffs is contained in the bulletins *Apparent Consumption of Foodstuffs and Nutrients* (4306.0) and *Apparent Consumption of Tea and Coffee* (4307.0).

Nutrients

The nutrients table has been compiled by the Nutrition Section of the Commonwealth Department of Health and is based on the estimates of the quantity of foodstuffs available for consumption per head of population.

ESTIMATED SUPPLY OF NUTRIENTS AVAILABLE FOR CONSUMPTION
(Per head per year)

		Average 3 years ended					
Nutrient	*Unit*	*1938–39*	*1948–49*	*1958–59*	*1972–73(a)*	*1973–74(a)*	*1974–75(a)*
Protein—							
Animal	g	58.7	57.4	59.6	65.3	60.5	69.6
Vegetable	g	30.9	35.3	32.3	32.8	33.0	32.2
Total	g	89.6	92.7	91.9	98.1	93.5	101.8
Fat (from all sources)	g	133.5	121.7	131.7	115.1	113.0	120.2
Carbohydrate	g	377.4	424.8	416.7	402.0	423.4	419.4
Calcium	mg	642.0	785.0	817.0	1,003.0	962.7	972.2
Iron	mg	15.4	15.1	14.0	14.0	13.4	15.2
Vitamin A (Retinol Activity)	i.u.	4,905.0	4,630.0	4,568.0	(b)1,563.0	(b)1,205.6	(b)1,541.0
Vitamin C (Ascorbic Acid)	mg	86.0	96.0	89.0	97.0	89.4	103.3
Thiamin	mg	1.4	1.5	1.3	1.6	1.6	1.6
Riboflavin	mg	1.7	1.9	1.8	2.8	2.9	3.2
Niacin	mg	18.7	17.6	18.6	19.6	19.0	21.7
Energy value	Kcal	3,117	3,245	3,297	3,176	3,223	3,267

(*a*) Not comparable with years prior to 1968–69. Figures are based on conversion factors calculated from the revised and enlarged edition of 'Tables of Composition of Australian Foods' (Sucy Thomas and Margaret Corden, Canberra, 1970). (*b*) Micrograms (μg).

NOTE: One international unit (i.u.) of Vitamin A is equivalent to 0.3 micrograms of Retinol.

Land tenure

Descriptions of the land tenure systems of the States and the Territories, and conspectuses of land legislation in force were provided in Year Book No. 48 and previous issues (*see also* Year Book No. 50, page 85 and the List of Special Articles preceding the General Index in this Year Book).

Disposal of crown lands

For a description of the provisions that exist in all mainland States for the disposal of crown lands for public purposes, for unconditional purchase and occupation under lease or licence, *see* Year Book No. 61, page 742.

Closer settlement and war service settlement

Particulars of these are given in issues of the Year Book up to No. 22, and in Year Book Nos. 48, 55 and 61.

Alienation and occupation of crown lands

LAND TENURES, 1976(*a*)
(Million hectares)

	Private lands		*Crown lands*		
State or Territory	*Alienated*	*In process of alienation*	*Leased or licensed*	*Other(b)*	*Total area*
New South Wales	26.1	1.4	43.8	8.8	80.1
Victoria	13.7	0.1	2.4	6.5	22.8
Queensland	12.7	18.3	125.4	16.4	172.8
South Australia	6.7	0.1	59.7	32.0	98.4
Western Australia	15.5	3.2	100.1	133.8	252.6
Tasmania	2.8	0.2	2.2	1.7	6.8
Northern Territory	0.1	. .	82.9	51.6	134.6
Australian Capital Territory(*c*)	. .	. .	0.1	0.2	0.2
Australia	**77.5**	**23.3**	**416.5**	**251.1**	**768.4**

(*a*) Queensland data is at 31 December 1975; Western Australia at 31 December 1976; all other States and Territories at 30 June 1976. (*b*) Occupied by Crown; reserved; unoccupied; unreserved. (*c*) Includes Jervis Bay.

Land utilisation in Australia

The table on Land Tenures in Australia, page 295, shows the proportions of Australia and of the States and Territories which are held under freehold tenure ('alienated or in process of alienation') or leasehold tenure ('leased or licensed'). The total area under tenure differs from the total area of rural holdings (shown below) by amounts which represent unused land or land held for non-agricultural purposes. In general, land in the more fertile regions tends to be mostly freehold, while the less productive land is held under Crown lease or licence.

AREA OF RURAL HOLDINGS: STATES
(Million hectares)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust. (incl. A.C.T.)*
1950 . .	68.8	15.5	144.0	59.3	85.4	2.6	n.a.	(*a*)375.8
1955 . .	68.6	15.3	146.6	60.7	92.6	2.7	n.a.	(*a*)386.4
1960 . .	69.9	15.3	150.5	62.9	99.0	2.6	64.3	464.6
1965 . .	69.7	15.3	152.6	63.5	108.7	2.6	69.4	481.9
1970 . .	69.1	15.8	153.9	65.8	113.6	2.6	73.7	494.7
1973 . .	68.8	15.8	155.1	65.4	114.0	2.6	78.0	499.8
1974 . .	68.9	15.5	154.5	64.8	114.7	2.6	79.5	500.5
1975 . .	68.9	15.2	154.2	63.8	115.6	2.5	79.3	499.6
1976 . .	68.8	15.1	155.6	63.6	116.3	2.5	78.8	500.7
1977p . .	66.6	14.7	154.8	63.3	117.7	2.3	76.0	495.6

(*a*) Excludes the Northern Territory.

LAND UTILISATION: AUSTRALIA
(Million hectares)

				Total	
At 31 March	*Area used for crops(a)*	*Area under sown pastures and grasses*	*Balance of holdings(b)*	*Area of holdings*	*Percentage of Australian land area (768,686,000 hectares)*
1950	8.3	7.4	360.2	375.8	48.9
1955	8.5	10.3	367.6	386.4	50.3
1960	10.1	13.5	441.0	464.6	60.0
1965	13.1	19.1	449.7	481.9	62.7
1970	15.6	26.2	452.8	494.7	64.4
1973	14.3	26.1	459.4	499.8	65.0
1974	15.1	27.2	458.2	500.5	65.1
1975	13.8	28.6	457.2	499.6	65.0
1976	14.5	27.7	458.4	500.7	65.1
1977p	15.0	26.9	453.7	495.6	64.5

(*a*) Excludes duplication on account of area double cropped. (*b*) Used for grazing, lying idle, fallow, etc.

The total area of rural holdings in 1976–77 constituted 64.5 per cent of the Australian land area, the remainder being urban areas, State forests and mining leases, with an overwhelming proportion of unoccupied land (mainly desert). The balance of holding data included large areas of arid or rugged land held under grazing licences but not always used for grazing. Balance data also included variable amounts of fallow land.

The crop area data represents up to 3.5 per cent of the area of rural holdings and emphasises the relative importance of the livestock industry in Australia—sheep in the warm, temperate, semi-arid lands and beef cattle in the tropics. The diminishing rural labour force (*see* page 344) is used on large areas of land with low carrying capacity.

Crops

For this section, statistics relating to crop areas and production have been obtained from the annual Agricultural Census. The census returns are collected in all States and the two Territories at 31 March each year and relate mainly to crops sown in the previous twelve months.

Where harvests are not completed by March (e.g. potatoes), provision is made in some States for a special collection after the harvest is completed. Additional statistics relating to value of agricultural commodities produced, manufactured production and overseas trade are also included. Agricultural Census data published in this section refer to the 'agricultural' year ended 31 March, while other data refer to the year ended 30 June; but for most purposes there will be little error involved in considering 'agricultural year' data as applying to the financial year.

The following table shows the area of crops in each of the States and Territories of Australia since 1860–61.

AREA OF CROPS(*a*): 1860-61 TO 1975-76

('000 hectares)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1860–61	100	157	2	145	10	62	..	..	475
1870–71	156	280	21	325	22	64	..	..	868
1880–81	245	627	46	846	26	57	..	..	1,846
1890–91	345	822	91	847	28	64	..	..	2,197
1900–01	990	1,260	185	959	81	91	..	..	3,567
1910–11	1,370	1,599	270	1,112	346	116	..	..	4,813
1920–21	1,807	1,817	316	1,308	730	120	..	1	6,099
1930–31	2,756	2,718	463	2,196	1,939	108	1	2	10,184
1940–41	2,580	1,808	702	1,722	1,630	103	..	2	8,546
1949–50	2,295	1,881	832	1,518	1,780	114	n.a.	4	8,424
1954–55	2,183	1,904	1,049	1,711	2,069	122	..	2	9,040
1959–60	2,888	1,949	1,184	1,780	2,628	130	1	3	10,564
1964–65	4,182	2,621	1,605	2,414	3,037	163	2	4	14,028
1965–66	3,663	2,517	1,667	2,440	3,513	156	2	3	13,961
1966–67	5,027	2,738	1,863	2,626	3,568	180	2	4	16,007
1967–68	4,590	2,208	1,883	2,191	3,592	106	6	2	14,578
1968–69	5,509	2,529	2,071	2,596	3,839	110	6	3	16,665
1969–70	4,999	2,212	2,208	2,290	3,912	98	6	2	15,728
1970–71	3,967	1,732	1,791	1,998	3,826	80	2	1	13,397
1971–72	4,186	1,968	1,985	2,312	3,714	67	7	1	14,240
1972–73	4,328	1,935	1,959	2,084	3,855	80	12	1	14,255
1973–74	4,628	1,980	1,787	2,452	4,131	74	5	1	15,059
1974–75	4,090	1,772	1,898	2,257	3,754	67	8	1	13,846
1975–76	4,285	1,852	2,010	2,116	4,208	61	8	1	14,540

(*a*) The classification of crops was revised in 1971–72 and adjustments made to statistics back to 1967–68. After 1966–67 lucerne for green feed, hay and seed, and pasture cut for hay are excluded.

NOTE: From 1970–71 data excludes duplication on account of area double cropped.

The wide range of climatic and soil conditions over the agricultural regions of Australia has resulted in a diversity of crops being grown throughout the country. Generally, cereal crops (excluding rice and sorghum) are grown in all States over wide areas, while other crops are confined to specific locations in a few States. However, scanty or erratic rainfall, limited potential for irrigation and unsuitable soils or topography have restricted intensive agriculture. Despite this, agricultural production has increased over time to meet increased demands both in Australia and overseas.

The following table provides an Australian summary of the area, production and gross value of the principal crops.

CROPS—AREA, PRODUCTION AND GROSS VALUE

Crop	*Area ('000 hectares)*			*Production ('000 tonnes)*			*Gross value ($m)*		
	1974–75	*1975–76*	*1976–77p*	*1974–75*	*1975–76*	*1976–77p*	*1974–75*	*1975–76*	*1976–77p*
Cereals for grain—									
Barley	1,826	2,329	2,320	2,515	3,179	2,850	257	314	295
Grain sorghum	511	504	521	901	1,124	n.a.	76	96	n.a.
Maize	51	47	55	133	131	n.a.	12	12	n.a.
Oats	897	987	991	874	1,141	1,073	60	78	73
Rice	76	75	92	388	417	528	36	41	n.a.
Wheat	8,308	8,555	8,943	11,357	11,982	11,825	1,256	1,249	1,060
Legumes for grain	193	192	171	97	69	n.a.	18	23	n.a.
Crops for hay—									
Barley	13	13	17	34	31	39	1	1	n.a.
Oats	150	167	211	481	557	691	15	20	n.a.
Wheat	47	47	60	136	138	162	4	4	n.a.
Crops for green feed, silage—									
Barley	76	57	62			n.a.			
Forage sorghum	77	85	74						
Oats	549	500	475						
Wheat	52	32	45						
Sugar cane cut for crushing	253	257	288	20,418	21,959	23,344	491	436	467
Tobacco	9	9	9	15	15	n.a.	49	51	n.a.
Cotton	39	30	34	103	80	n.a.	29	38	n.a.
Peanuts	24	27	30	32	35	n.a.	12	16	n.a.
Linseed	36	16	16	33	12	17	7	2	n.a.
Rapeseed	12	16	8	9	12	8	2	2	n.a.
Safflower	36	40	15	31	18	7	8	3	n.a.
Sunflower	210	137	134	113	80	n.a.	24	16	n.a.
Fruit	103	100	91	. .	. .	. .	267	269	294
Orchard fruit	87	85	n.a.	. .	. .	. .	215	206	n.a.
Oranges		n.a.		341	362	323	43	46	n.a.
Apples				368	275	n.a.	74	74	n.a.
Pears				158	140	n.a.	26	20	n.a.
Peaches				91	79	74	24	18	n.a.
Berry and other	16	15	n.a.	. .	. .	. .	51	63	n.a.
Bananas	8	8	8	118	97	103	31	40	n.a.
Pineapples	6	6	6	110	103	112	12	14	n.a.
Grapevines	71	71	72	728	712	n.a.	101	102	123
Vegetables	111	106	109	. .	. .	. .	258	275	290
Potatoes	38	34	37	736	696	n.a.	87	91	n.a.
Pastures and grasses cut for hay	1,033	937	918	457	3,591	3,528	136	119	n.a.
Total, all crops (including pastures)	**15,025**	**15,575**	**16,015**	. .	. .	. .	**3,206**	**3,250**	**3,205**

In the tables that follow, crop statistics are shown in these groupings: wheat, coarse grains, rice, oilseeds, sugar, vegetables, fruit, grapevines and other crops such as tobacco, mushrooms, nurseries and fodder crops. A further grouping shows farm consumption of cereals, etc., artificial fertilisers, aerial agriculture and irrigation from page 340.

Cereal grains

In Australia, cereals are conveniently divided into autumn-winter-spring growing ('winter' cereals) and spring-summer-autumn growing ('summer' cereals). Winter cereals such as wheat, oats, barley and rye are usually grown in rotation with some form of pasture such as subterranean clover, medics and clover. In recent years, alternative winter crops such as rapeseed, field peas and lupins have been introduced into cereal rotation in areas where they had not previously been grown. Rice, maize, sorghum and the millets are summer cereals and, except for rice, are also used for stock feed. In Northern Queensland there are two rice growing seasons a dry season winter crop and a wet season summer crop.

Cereals for grain form a significant percentage of both the value of Australia's agricultural commodities and of the country's export earnings. The following table shows the significance of cereal grains in the last 28 years.

CEREAL GRAINS IN AUSTRALIA: A PERSPECTIVE

Year	Cereal grains(a)		Total agriculture Gross value	Total Australian exports—all produce Value f.o.b.	Gross value of cereal grains as a percentage of gross value of agriculture	Export value of cereal grains as a percentage of total Australian exports
	Gross value	Export value f.o.b.				
	$m	$m	$m	$m	per cent	per cent
1949–50	346.4	203.2	1,558	1,217	22.2	16.7
1954–55	300.7	167.6	2,208	1,532	13.6	10.9
1959–60	372.6	202.8	2,646	1,839	14.1	11.0
1964–65	653.7	393.3	3,421	2,582	19.1	15.2
1969–70	684.7	431.9	3,730	3,966	18.4	10.9
1972–73	575.0	421.6	4,957	5,961	11.6	7.1
1973–74	1,715.0	747.4	6,412	6,707	26.7	11.1
1974–75	1,701.3	1,466.4	5,878	8,404	28.9	17.4
1975–76	1,798.2	1,376.4	6,184	9,553	29.1	14.4
1976–77p	1,592.0	n.a.	6,706	n.a.	23.7	n.a.

(*a*) Principally wheat, barley, oats, grain sorghum, rice and maize, with panicum/millet, canary seed and rye being minor cereals.

In the tables that follow, area, production, gross value and trade data are shown at five yearly intervals from 1949–50. For more up-to-date and detailed information on cereals for grain *see* the following publications:

Agricultural Sector—Part I, Structure of Operating Units (7102.0), *Rural Land Use: Improvements and Agricultural Machinery* (7103.0), *Agricultural Statistics of the A.C.T.* (7104.0), *Agricultural Statistics of the N.T.* (7105.0), *Principal Agricultural Statistics: First Estimates* (7201.0), *Principal Agricultural Statistics: Second Estimates* (7202.0), *Crop and Fruit Statistics* (*Preliminary*) (7301.0), *Crop Statistics* (7302.0), *Cereal Grains: Estimates of Intended Sowings* (7304.0), *Cereal Grains: Estimates of Area Sown* (7305.0), *Cereal Grains: Estimates of Production* (7306.0), *Wheat Statistics* (7307.0), *Gross Value of Agricultural Commodities Produced: First Estimates* (7501.0), *Value of Agricultural Commodities Produced: Second Estimates* (7502.0), *Value of Agricultural Commodities Produced* (7503.0).

Wheat

Wheat is grown extensively in all States except Tasmania, and is the most important crop in Australia in terms of area, production and value of exports.

The present limits of the wheat belt have been established after considerable fluctuations over the last half century. Prominent factors in the early development of the industry were the increase in population following the discovery of gold and the redistribution of labour after the surface gold had been won. The economic depression of 1893 interrupted its progress, but its subsequent recovery was assisted by the invention of mechanical appliances, the use of superphosphate as an aid to production, and the introduction of new and more suitable varieties of wheat for Australian conditions. The establishment of closer settlement schemes and the settling of returned soldiers and others on the land were additional factors in its expansion.

Two further factors which have contributed to the development of the industry are the organisation of overseas marketing and of research. As a large proportion of the wheat crop is exported, wheat marketing plays an important role. The Australian Wheat Board was constituted in September 1939, under *National Security* (*Wheat Acquisition*) *Regulations*, to purchase, sell or dispose of wheat or wheat products and to manage or control all matters connected with the handling, storage, protection, shipment, etc. of wheat acquired and such other matters as were necessary to give effect to the regulations. The *Wheat Industry Stabilization Act* 1948 reconstituted the Australian Wheat Board to administer the first stabilisation plan, and the Board maintained the *Wheat Industry Stabilization Acts* 1954, 1958, 1963–66, 1968–73 and 1974–75 for the purpose of administering the second, third, fourth, fifth and sixth Five Year Stabilisation Plans. Details of the more recent plans were published in Year Book numbers 40, 44, 48, 54, 55 and 61.

World wheat

Under the influence of high prices and expansionary production policies, world producers have in recent years attempted to expand production to cope with a critically low level of wheat stocks and increasing wheat consumption. Forecasts of longer term prospects in the world wheat economy are extremely hazardous in view of the critical influence and unpredictability of the weather but, because of the need for longer term planning, wheat producers must consider the more important factors likely to influence future development. The international wheat market is partly residual and sensitive to changes in the overall world supply/demand situation, and producers in Australia and the other main exporting countries need to react rapidly if they are to avoid surplus production, the building of excess stock and, hence, depressed prices.

Wheat delivery quota plan

In March 1969, the Australian Wheat Growers Federation put forward proposals for the allotment of quotas on wheat deliveries designed to bring marketable supplies of wheat more into line with available outlets. The proposals became effective following the record 1968-69 harvest of 14.8 million tonnes. Quotas were subject to annual review and, while wheat in excess of a quota was received if storage space was available, 'quota wheat' received preference. Only deliveries made within the established quotas received a first advanced payment. In an effort to stimulate output during the 1975-76 season (and so take advantage of the favourable international market situation), wheat delivery quotas were suspended and the first advanced payment to growers was announced well before planting. Producers reacted to the overall market conditions by increasing their plantings. A summary of quota allocation is given in Year Book No. 61, pages 842-3.

Wheat varieties and standards of wheat

The breeding of wheat suitable to local conditions has long been established in Australia. William Farrer (1845-1905) did invaluable work in pioneering this field and the results of his labour and the continued efforts of those who have followed him have proved of immense benefit to the industry. Their efforts have resulted in the development of disease-resistant varieties, better average yields, and a greater uniformity of sample, with which have accrued certain marketing advantages as well as an improvement in the quality of wheat grown. A detailed table of wheat varieties sown appears in the annual bulletin *Wheat Statistics* (7307.0). The continuation of wheat breeding activities has led to expansions in the areas sown to wheat as well as in yields per hectare, but it is difficult to distinguish progress due to improved wheat varieties from that due to wider rotations, increased mechanisation and superphosphate-increased pastures.

The quality of wheat (its flour yielding capacity, protein content, hardness and physical dough properties) is governed by a combination of the wheat variety and the climatic and growing characteristics of its region of origin. Since 1966-67, Australian wheat has been marketed under district classification. This practice of segregation has been widely employed to enhance the marketability of Australian wheat, and in recent years up to twenty-two separate grades have been made available for export. Within the Australian wheatbelt there exist wide ranges of soil fertility, rainfall, day length and ambient temperature, and, by developing varieties which complement the growing conditions, it has been possible to produce varieties with qualities suitable for virtually every commercial application. Particulars of Australian standard weights for the different grades of wheat may be found in the annual bulletin *Wheat Statistics* (7307.0).

Central Grain Research Laboratory

In 1976, the Australian Wheat Board established this laboratory in Sydney as an addition to the facilities of the Bread Research Institute of Australia. The main functions of the laboratory are to test and report on the Australian crop, to analyse and compare competitor wheats from other countries and to develop research programs to aid the marketing of wheat.

Wheat Stabilisation—I.A.C. Inquiry

The Industries Assistance Commission has been asked to report on whether assistance should be given to the wheat industry to stabilise its returns after the Sixth Wheat Industry Stabilisation Plan expires on 30 September 1979 and, if so, the nature and extent of such assistance.

WHEAT: AREA, PRODUCTION AND RECEIVALS

Season	Area		Production		Australian Wheat Board receivals(a)
	For grain	All purposes	Grain	Gross value	
	'000 ha	'000 ha	'000 tonnes	$m	'000 tonnes
1949–50 . . .	4,953	5,145	5,939	297.2	5,523
1954–55 . . .	4,319	4,546	4,589	215.1	4,157
1959–60 . . .	4,926	5,089	5,402	275.5	4,881
1964–65 . . .	7,251	7,389	10,037	517.7	9,430
1969–70 . . .	9,486	9,736	10,547	531.1	9,755
1972–73 . . .	7,604	7,773	6,590	356.6	5,439
1973–74 . . .	8,948	9,066	11,987	1,311.9	11,200
1974–75 . . .	8,308	8,406	11,357	1,256.4	10,705
1975–76 . . .	8,555	8,633	11,982	1,249.2	11,257
1976–77p . . .	8,943	9,057	11,825	1,060.0	(b)10,928

(a) Australian Wheat Board receivals are for the season commencing 1 December; production data is for the year ending 31 March. (b) Receivals to 22 October 1977.

WHEAT FOR GRAIN: AREA AND PRODUCTION, BY STATE

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Australia
AREA ('000 hectares)							
1971–72 . .	2,426	1,040	556	1,069	2,042	5	7,138
1972–73 . .	2,618	1,087	471	986	2,437	4	7,604
1973–74 . .	2,883	1,258	395	1,432	2,978	3	8,948
1974–75 . .	2,646	1,141	489	1,220	2,810	2	8,308
1975–76 . .	2,774	1,073	576	958	3,171	2	8,555
1976–77p . .	3,116	1,103	579	839	3,304	2	8,943
PRODUCTION ('000 tonnes)							
1971–72 . .	2,410	1,894	722	1,407	2,165	8	8,606
1972–73 . .	1,954	1,405	405	815	2,003	8	6,590
1973–74 . .	3,962	1,490	526	1,795	4,211	4	11,987
1974–75 . .	3,809	2,091	692	1,486	3,277	2	11,357
1975–76 . .	4,310	1,578	830	1,139	4,122	2	11,982
1976–77p . .	5,141	1,775	798	832	3,274	4	11,825

A graph showing the area sown to wheat for grain in Australia for the years 1900–01 to 1970–71 appears in Year Book No. 58, page 746, and a map showing the distribution of areas growing wheat for grain throughout Australia in 1962–63 appears on page 1013 of Year Book No. 50. Similar maps showing the distribution of wheat areas in 1924–25, 1938–39, 1947–48, and 1954–55 appeared respectively in Year Books No. 22, page 695; No. 34, page 451; No. 39, pages 977–8; and No. 43, page 833. A graph showing production of wheat from 1940–41 appeared in Year Book No. 61, page 756.

PRODUCTION AND DISPOSAL OF WHEAT FOR GRAIN*

('000 tonnes)

Year ended 30 November	*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Production	8,606	6,590	11,987	11,357	11,982
Less balance held on farms for—					
Seed usage	467	547	505	511	539
Feed and other uses	473	604	282	141	186
Gross receivals	7,666	5,439	11,200	10,705	11,257
Opening stocks(*a*)	3,400	1,448	478	1,882	1,658
Total availability for sale	11,066	6,887	11,678	12,587	12,915
Export shipments—					
Wheat	7,426	3,855	7,124	8,254	7,962
Flour and wheat products(*b*)	334	282	294	296	271
Domestic sales—					
Flour	1,276	1,272	1,362	1,334	1,304
Stockfeed	534	935	911	1,007	633
Breakfast feeds	38	36	46	55	55
Total disposal	9,608	6,380	9,737	10,946	10,225
Availability (−) Disposals	1,458	507	1,941	1,641	2,690
Closing stocks	1,448	478	1,882	1,658	2,605
Apparent wastage	10	29	59	−17	25

(*a*) Includes the wheat equivalent of flour. (*b*) In terms of wheat.

* NOTE: The Australian Wheat Board is the source of export shipments, domestic sales data, and opening and closing stocks; the ABS records other data.

Other wheat statistics

Prices. The *home consumption price* is the price of Australian Standard White (ASW) bulk wheat f.o.r. (ports) sold by the Australian Wheat Board on the home market. It includes a loading of a variable amount to meet freight charges on wheat shipped to Tasmania. Prior to 1973–74 the home consumption price varied according to the end usage, viz. human consumption, manufacture of flour for industrial use, basic stockfeed or stockfeed where the purchaser undertook to buy the entire season's requirements from the Wheat Board.

The *monthly export price* is the Wheat Board's basic export selling price for ASW bulk wheat f.o.b. . Much of the wheat exported is sold under contract for delivery over lengthy periods and these prices do not necessarily reflect the prices received for all wheat shipped during those months.

For details of these price series *see* earlier issues of the Year Book and the latest issue of *Wheat Statistics* (7307.0).

Wheat pools. Details of wheat receivals by State of origin for the several Pools together with Pool payments and times of payment will be found in the latest issue of *Wheat Statistics* (7307.0).

Wheat exports

International Wheat Agreement. Details of the first and second International Wheat Agreements operative from 1 August 1949 to 31 July 1953, and from 1 August 1953 to 31 July 1956 respectively were published in Year Book No. 42, pages 840–1 or previous issues. Details of the third, fourth and fifth International Wheat Agreements which covered the periods from 1 August 1956 to 31 July 1959, 1 August 1959 to 31 July 1962 and 1 August 1962 to 31 July 1968 were published in Year Books Nos.—43, page 836; 48, page 906; and 55, page 836, respectively.

Details of the third International Wheat Agreement, which came into force on 1 July 1971 and which was extended three times by protocol to expire on 30 June 1978, will be found in the latest issue of *Wheat Statistics* (7307.0).

WHEAT EXPORTS: A COMPARISON WITH OTHER EXPORT COMMODITIES(*a*)

Year	*Wheat for grain: Exports*		*Total Australian exports—all produce: Value f.o.b.*	*Export value of wheat for grain as a percentage of total Australian exports*
	Quantity	*Value f.o.b.*		
	'000 tonnes	$m	$m	per cent
1949–50	2,134	124.3	1,216.9	10.2
1954–55	1,717	90.4	1,531.8	5.9
1959–60	2,483	123.4	1,839.4	6.7
1964–65	5,715	297.2	2,581.9	11.5
1969–70	6,886	337.6	3,965.9	8.5
1972–73	5,391	273.1	5,961.4	4.6
1973–74	5,128	517.1	6,707.0	7.7
1974–75	7,860	1,034.4	8,404.4	12.3
1975–76	7,559	921.5	9,552.7	9.6
1976–77	7,945	863.5	n.a.	n.a.

(*a*) These statistics exclude re-exports.

EXPORTS OF WHEAT AND FLOUR

Country of consignment	*1971–72*		*1972–73*		*1973–74*		*1974–75*		*1975–76*	
	'000 tonnes	*$m*	*'000 tonnes*	*$m*	*'000 tonnes*	*$m*	*'000 tonnes*	*$m*	*'000 tonnes*	*$m*
					WHEAT					
Bangladesh	13.9	0.7	52.6	3.7	241.7	32.9	310.2	39.6	98.0	11.5
Chile	296.9	13.9	508.7	24.2	303.1	37.6	142.7	21.5	..	..
China—excl. Taiwan Province	..	..	324.0	16.5	1,163.1	83.7	1,398.6	158.1	1,082.9	120.2
—Taiwan Province only	143.3	7.1	164.1	8.2	26.1	3.7	74.7	11.0	65.2	7.9
Egypt, Arab Republic of	1,801.1	83 8	777.0	32.9	714.8	71.1	861.4	115.9	1,015.6	143.2
India	55.2	2.8	..	..	666.1	53.1	236.2	31.6	312.5	29.3
Indonesia	104 6	5.4	71.6	4.7	114.6	16.1	597.5	80.1	294.2	34.1
Iran	396.8	21.0	..	..	..	..	424.2	53.6	83.4	8.0
Iraq	191.6	10.4	..	..	116.4	11.4	254.9	41.3	302.7	53.4
Japan	1,466 3	72.1	751.8	42 5	423.7	57.9	995.0	136.8	1,065.4	124.3
Korea, Dem. Peop. Rep.	50.4	2.4	..	..	104.7	13.3	49.9	5.5	156.1	17.4
Malaysia	310.0	15.8	299.5	15.2	314.8	29.3	284.9	38.9	316.8	36.6
Singapore	133.6	6.5	175.2	10.8	166.9	18.0	158.6	21.2	127.6	13.4
U.K.	573.2	27.5	520.1	28.7	..	..	..	..	..	..
U.S.S.R.	502.4	27.5	907.5	41.0	17.5	0.9	634.7	92.1	1,309.6	166.0
Yemen Arab Rep.	99.3	5.9	45.6	3.0	35.5	5.1	38.5	5.5	178 6	23.0
Other countries	2,320.9	115.7	793.3	41.6	719.2	83.0	1,398.0	181.7	1,158.5	134.0
Total	**8,459.5**	**418.5**	**5,391.0**	**273.1**	**5,128.2**	**517.1**	**7,860.0**	**1,034.4**	**7,567.1**	**922.5**
					FLOUR(*a*)					
Burma, Socialist Rep.	8.9	0.7	4.0	0.3	2.9	0.5	1.0	0.2	..	..
Fiji	33.9	1.5	31.6	1.7	10.4	1.5	2.3	0.5	1.9	0.3
Gilbert and Ellice Islands	1.7	0.1	1.9	0.2	2.0	0.4	2.5	0.5	2.0	0.4
Mauritius	17.3	1.2	17.5	1.4	17.2	2.1	16.0	3.0	16.0	2.9
New Caledonia	1.8	0.2	2.5	0.2	0.8	0.2	1.6	0.3	1.1	0.2
Oman	6.2	0.4	5.2	0.4	6.6	1.0	5.6	1.1	6.0	1.0
Papua New Guinea	19.5	1.7	19.7	2.0	18.6	3.1	21.7	4.1	19.8	3.7
Philippines	0.8	0.1	8.2	0.7	8.2	1.3	5.5	1.3	3.9	0.7
Samoa (Western)	2.5	0.2	2.5	0.3	3.1	0.5	3.8	0.8	2.8	0.5
Saudi Arabia	9.5	0.7	10.0	0.8	11.0	1.3	8.0	1.3	6.3	1.0
Solomon Islands	1.7	0.1	2.1	0.2	1.4	0.2	1.8	0.3	1.2	0.2
Sri Lanka	14.9	1.1	13.5	1.5	21.7	4.5	126.9	27.9	94.0	15.9
Timor	2.1	0.1	2.8	0.3	1.2	0.2	2.4	0.5	0.4	0.1
Tonga	3.4	0.3	4.1	0.3	3.2	0.5	3.4	0.7	2.3	0.4
United Arab Emirates	18.0	1.1	23.2	1.9	26.2	3.7	31.6	6.3	40.0	7.6
Other countries	54.1	4.4	35.9	1.0	13.3	1.2	15.3	1.8	29.9	5.2
Total	**196.5**	**14.0**	**184.6**	**13.2**	**147.8**	**22.0**	**249.3**	**50.6**	**227.5**	**40.1**

(*a*) Plain, white and self-raising flour, sharps and wheatmeal for baking.

WORLD WHEAT: AREA AND PRODUCTION

Source: International Wheat Council, *World Wheat Statistics* (various issues)
Unit: Area in million hectares; production in million tonnes

	1971–72		*1972–73*		*1973–74*		*1974–75*		*1975–76*	
	Area	*Prod.*	*Area*	*Prod.*	*Area*	*Prod.*	*Area*	*Prod.*	*Area*	*Prod.*
Europe	27.8	81.3	27.7	82.0	26.5	82.2	27.3	90.7	25.3	77.0
E.E.C. (9)	11.1	40.1	11.1	41.4	10.8	41.4	11.2	45.4	10.5	38.1
U.S.S.R.	64.1	98.8	58.5	85.8	63.2	109.7	59.7	83.9	62.0	66.2
North & Central America	27.8	60.2	28.5	58.4	32.0	65.0	36.3	65.0	38.5	77.9
Canada	7.9	14.4	8.6	14.5	9.4	16.5	8.9	13.3	9.5	17.1
U.S.A.	19.3	44.0	19.1	42.0	21.9	46.4	26.6	48.9	28.2	58.1
South America	7.9	9.8	8.7	9.9	6.3	10.0	7.7	10.7	9.6	11.8
Asia	73.9	86.7	75.9	94.2	76.5	89.2	75.5	89.7	76.4	100.3
China(*a*)	28.9	33.0	29.1	35.0	28.7	36.0	29.0	37.0	30.0	41.0
India	18.2	23.8	19.1	26.4	19.5	24.7	18.6	21.8	18.0	24.2
Iran	5.6	3.7	5.5	4.5	5.9	4.6	5.9	4.7	6.0	5.5
Pakistan	6.0	6.5	5.8	6.6	6.0	7.4	6.1	7.6	5.8	7.7
Turkey	8.7	13.5	8.7	12.2	8.9	10.0	8.8	11.0	9.3	14.8
Africa	8.9	9.1	9.9	9.7	8.9	9.8	8.5	9.2	8.7	8.6
Oceania	7.3	9.0	7.7	7.0	9.0	12.2	8.4	11.5	8.6	12.3
Australia	7.1	8.6	7.6	6.6	8.9	12.0	8.3	11.4	8.6	12.0
Total world	**217.7**	**354.5**	**216.7**	**344.1**	**223.4**	**377.2**	**223.7**	**359.9**	**229.1**	**354.2**

(*a*) Excludes Taiwan Province; FAO estimates.

NOTE: 1. Crop years shown cover northern hemisphere harvests combined with those of the southern hemisphere which immediately follow.
2. The 9 members of the E.E.C. are: Belgium, Denmark, France, Federal Republic of Germany, Ireland, Italy, Luxembourg, Netherlands and the United Kingdom.

Coarse grains

In the late sixties and early seventies, restrictions on wheat deliveries and low prices for output from sheep enterprises resulted in a resurgence of interest in coarse grain crops and the newer oilseed crops. Expanded plantings and productions resulted, but this expansion tended to fall off with improvements in the market prospects for wheat, wool and meat.

Oats

Oats is traditionally a cereal of moist temperate regions. However, improved varieties and management practices have enabled oats to be grown over a wide range of soil and climatic conditions. It has excellent feed value and produces a greater bulk of growth than other winter cereals; it needs less cultivation and responds well to superphosphate and nitrogen. Oats has a variety of uses—as a pasture plant when rough sown into heavy stubble or heavy clover pastures, as a fodder crop when mown and baled or cut for chaff, or as a grain when stripped (the stubble then being grazed off). The grain is sold through voluntary pools in Victoria, South Australia and Western Australia. In New South Wales, a State Statutory Marketing Board was set up in 1971.

Oats is usually next in importance to wheat and barley among the grain crops. About three-quarters of the crop is used domestically as stockfeed or for human consumption.

OATS FOR GRAIN: AREA, PRODUCTION AND EXPORTS

Year	*Area*	*Production*		*Exports*	
		Quantity	*Gross value*	*Quantity*	*Value f.o.b.*
	'000 ha	'000 tonnes	$m	'000 tonnes	$m
1949–50	707	497	16.5	120	4.8
1954–55	1,042	596	28.1	52	2.8
1959–60	1,226	850	36.8	217	10.1
1964–65	1,415	1,271	51.4	366	15.6
1969–70	1,374	1,247	33.4	219	7.6
1972–73	995	736	31.5	115	5.0
1973–74	1,182	1,107	66.8	184	13.6
1974–75	897	874	59.6	236	19.8
1975–76	987	1,141	77.8	359	32.9
1976–77p	991	1,073	73.0	364	33.4

World production of oats for grain for 1976-77 is estimated by the Bureau of Agricultural Economics to amount to about 49 million tonnes; Australia's share is about 2.2 per cent.

Barley

This cereal contains two main groups of varieties, 2-row and 6-row. The former is generally, but not exclusively, preferred for malting purposes. Barley is grown principally on pasture land worked up early in the year of sowing. In this way it forms an important phase in the rotation of crops. Like oats, it may also be sown for fodder production or for grain. When sown for fodder, sowing may take place either early or late in the season, as it has a short growing period. It may thus provide grazing or fodder supplies when other sources are not available. Barley grain may be crushed to meal for stock or sold for malting.

Crops sown for malting purposes require a combination of light textured soil of moderate fertility, reliable rainfall, and mild weather during ripening. The main barley-growing areas in Australia are situated in South Australia (South Adelaide Plains, Eyre and Yorke Peninsulas), but considerable quantities are grown also in New South Wales, Victoria, Queensland and Western Australia.

Barley Boards

There are State statutory marketing boards operating in New South Wales, Victoria, Queensland and South Australia. The Western Australian Barley Marketing Board was abolished at the end of 1975 and the marketing of barley in Western Australia is now the responsibility of the Grain Pool of Western Australia. Pooled returns from sales are distributed to growers at standard rates for the individual grades and varieties delivered. The Victorian and South Australian crops are marketed by the Australian Barley Board (a joint board established by the two State Governments), and the Queensland and New South Wales Boards and the Grain Pool of Western Australia handle the crops of their respective States.

BARLEY FOR GRAIN: AREA, PRODUCTION AND EXPORTS

		Production					
				Total		*Exports*	
Year	*Area*	*2-row*	*6-row*	*Quantity*	*Gross value*	*Quantity*	*Value f.o.b.*
	'000 ha	—	'000 tonnes		$m	'000 tonnes	$m
1949–50	421	398	45	443	21.4	243	12.9
1954–55	684	581	86	667	36.5	428	20.7
1959–60	963	592	183	775	33.2	567	23.1
1964–65	835	947	171	1,118	55.6	369	18.0
1969–70	1,521	1,398	300	1,699	66.0	631	22.7
1972–73	2,140	1,441	286	1,727	90.9	804	38.5
1973–74	1,894	2,076	322	2,397	190.5	808	68.5
1974–75	1,826	2,272	243	2,515	256.9	1,760	186.7
1975–76	2,329	2,872	307	3,179	313.9	1,954	199.8
1976–77p	2,320	2,628	222	2,850	295.0	2,100	222.5

The Bureau of Agricultural Economics has estimated the 1976–77 world production at 179 million tonnes; Australia's share is about 1.7 per cent.

Grain sorghum

The sorghums are summer growing crops which are used in three ways: grain sorghum for grain; sweet or fodder sorghum, sudan grass and, more recently, columbus grass for silage, green feed and grazing; and broom millet for brooms and brushware.

The growing of grain sorghum on an extensive scale did not attain a position of prominence until the last two decades. Operations are highly mechanised and rapid increases in production have resulted in a substantial increase in exports. The grain is used primarily as stockfeed and is an important source for supplementing other coarse grains for this purpose.

The climatic conditions of Queensland and northern New South Wales are particularly suited to the growing of sorghums. In Queensland, grain sorghum production is concentrated in the Burnett and Dawson-Callide areas and in the Central Highlands. In New South Wales, the north-western slopes and plains are the main areas.

In Central Queensland, orderly marketing of the crop is arranged through the Central Queensland Grain Sorghum Marketing Board and in Southern Queensland the Grain Sorghum Export Committee of the Queensland Grain-growers Association. A State statutory marketing board commenced operations in New South Wales with the marketing of the 1972 crop.

GRAIN SORGHUM: AREA, PRODUCTION AND EXPORTS

Year	Area	Production		Exports	
		Quantity	Gross value	Quantity	Value f.o.b.
	'000 ha	'000 tonnes	$m	'000 tonnes	$m
1949–50	41.7	60.6	1.8	19.0	0.7
1954–55	87.3	145.8	5.3	44.8	1.7
1959–60	109.9	220.1	7.9	60.2	2.2
1964–65	139.9	195.0	8.3	2.1	0.1
1969–70	358.7	547.4	24.1	53.8	2.4
1972–73	697.2	1,017.5	59.0	735.5	35.3
1973–74	539.7	1,060.6	80.4	747.9	54.3
1974–75	511.1	900.8	76.2	855.8	73.3
1975–76	504.0	1,123.7	96.1	815.0	71.8
1976–77	521.4	n.a.	n.a.	829.2	76.3

For the 1976–77 season, the Bureau of Agricultural Economics has estimated the world production of grain sorghum at 53 million tonnes; Australia's share is about 2.1 per cent.

Maize

Like sorghum, maize is a summer cereal demanding specific soil and climatic conditions. For grain, growing is almost entirely confined to the south-east regions and Atherton Tablelands of Queensland and the north coast and northern tablelands of New South Wales. On the Atherton Tablelands in Queensland, and generally in New South Wales and Victoria, the cereal provides a stock feed for dairy cattle, fat stock, poultry and pigs. In times of drought it is used also as a sheep feed. In all States except South Australia, however, this crop is grown to some extent for green feed and silage, particularly in connection with the dairying industry. There is practically no difference between grain and fodder varieties.

There has been a continuing increase in recent years in the growing of maize from hybrid strains of seed. Varieties have been developed which are capable of producing yields per hectare considerably in excess of the older open pollinated types. The expansion in areas sown to hybrid maize has led to a parallel development in the specialised industry of growing hybrid strains for seed.

A State statutory board controls marketing in the Atherton Tablelands area of Queensland. In New South Wales in 1975 growers voted for the formation of a marketing board.

World maize production in 1976–77 is estimated by the Bureau of Agricultural Economics at 326 million tonnes.

MAIZE: AREA, PRODUCTION AND EXPORTS

Year	Area	Production		Exports	
		Quantity	Gross value	Quantity	Value f.o.b.
	'000 ha	'000 tonnes	$m	'000 tonnes	$m
1949–50	78.3	152.3	5.6	30.5	1.2
1954–55	68.7	128.9	7.2	11.6	0.6
1959–60	74.8	170.8	8.1	0.1	..
1964–65	85.9	174.7	10.0	0.1	..
1969–70	79.6	191.6	10.5	0.1	..
1972–73	59.3	138.8	8.7	9.2	0.5
1973–74	45.6	105.8	9.0	2.7	0.2
1974–75	51.4	133.3	11.7	1.2	0.2
1975–76	46.8	131.5	12.2	10.8	1.0
1976–77	54.7	n.a.	n.a.	33.0	2.8

Rice

Rice is cultivated generally between latitudes 49° N and 35° S wherever sufficient water is available and where low temperatures do not limit growth and development. The principal rice-growing areas are confined almost entirely to Asia. In Australia, rice was first grown commercially in the Murrumbidgee Irrigation Area in 1924–25, and it was not long before a surplus became available for export. In the late 1960s, irrigation in the Burdekin area of northern Queensland enabled significant plantings to be made with two rice-growing seasons—a dry winter crop and a wet summer crop. In both the M.I.A. and the Burdekin Delta, limited irrigation water controls rice plantings.

RICE: AREA, PRODUCTION AND EXPORTS

Year	Area	Production		Exports	
		Quantity	*Gross value*	*Quantity*	*Value f.o.b.*
	'000 ha	'000 tonnes	$m	'000 tonnes	$m
1949–50 . . .	15.2	72.1	3.3	27.1	2.4
1954–55 . . .	15.7	96.8	6.9	18.5	3.0
1959–60 . . .	19.8	128.3	8.9	67.1	6.9
1964–65 . . .	24.9	153.0	8.5	64.9	8.0
1969–70 . . .	40.2	246.7	14.5	128.8	17.1
1972–73 . . .	45.2	308.6	25.0	157.6	21.2
1973–74 . . .	67.5	408.8	50.5	136.6	28.6
1974–75 . . .	75.6	388.3	35.9	164.3	43.0
1975–76 . . .	74.8	417.0	41.2	218.0	51.4
1976–77 . . .	92.1	528.0	n.a.	256.5	57.1

Oilseeds

The restrictions on wheat deliveries and low wool and meat prices in the late 1960s and early 1970s increased interest in the newer oilseed crops such as rapeseed. This was aided by a buoyant world market for oilseeds.

In Australia, sunflower, soybeans, rapeseed, linseed and safflower are grown specifically for crushing. These crops are located in the grain areas of several States and have shown spectacular increases in recent years. Peanuts, cottonseed and, to a lesser extent, maize are grown for other purposes, but oil is a by-product.

Linseed. Varieties of the summer-growing annual flax plant have been developed for the production of linseed which, when crushed, yields an industrial oil used in the manufacture of paint and linoleum. The introduction of synthetics into these fields has reduced the demand for linseed oils. The main producing areas are the wheat belt of New South Wales, western and north-eastern districts of Victoria, the Esperance district of Western Australia, the Darling Downs in Queensland and the south-eastern district of South Australia.

Rapeseed. This is obtained from several varieties of brassica which are cultivated in temperate and warm temperate zones for their oil-producing seed. Rapeseed oil is used mainly as a salad and cooking oil with some minor amounts being utilised for industrial purposes. A protein meal is derived as a by-product in the crushing process. Rapeseed is winter growing and is produced mainly in the higher rainfall areas of southern New South Wales, Victoria, South Australia and Western Australia. From virtually nil production in 1967–68 it rose to a peak of 55,000 tonnes in 1971–72 but declined rapidly due partly to blackleg disease in Western Australian crops.

Safflower. Safflower is best cultivated either in the warm temperate zones or as a winter crop in the tropical or sub-tropical regions, on moderately fertile, weed-free, clay or sandy loams. Adequate moisture is required up to the flowering stage, after which it is relatively drought resistant. The soil preparation and sowing techniques are similar to those employed for small grains; it is usually harvested by headers when the seed is hard and dry. The oil, produced by crushing, is used in the manufacture of margarine, soaps, paints, varnishes, enamels, and textiles.

Sunflower. Sunflowers are summer growing annuals produced mainly under raingrown conditions in the three eastern mainland States of Australia. The cultivation of sunflowers has developed rapidly in recent years to make it the major oilseed crop.

The seed for which the plant is cultivated yields a high quality dual purpose oil and a by-product protein meal used for stockfeed. Main uses for the oil are in the manufacture of margarine, as a salad and cooking oil, and for industrial purposes.

Soybeans. The soybean is cultivated widely throughout the world in temperate zones where hot damp summers provide adequate growing conditions. Although large quantities of beans are directly consumed in countries such as Japan, China (excluding Taiwan Province) and Indonesia, the greater part of world output is crushed for meal and oil. Major soybean producing countries are the United States of America, Brazil and China (excluding Taiwan Province).

The greater part of Australian production takes place in the Darling Downs, Burnett and Lockyer districts of Queensland and in the Moree and Gunnedah districts of New South Wales.

Trends in the production of these specialised oilseed crops are closely tied to development in markets and prices not only for oilseeds but also for wheat, wool and meat. In 1975–76, due to lower world and domestic market prices and an increase in oil imports, the industry requested greater import protection. The Industries Assistance Commission is reviewing the assistance requirements of the fats and oils production sector as well as the seed producing industry. While any recommendations will have significant influence on the development of the oilseed industry, increased attention is being paid to alternative marketing arrangements and to research to improve technical and economic efficiency.

Peanuts. Peanuts, or groundnuts, are a sub-tropical legume (and hence summer growers), the pods of which mature beneath the surface of the soil. They thus require well drained, light textured soils. At harvest the plant is pulled, wind-rowed, field-cured for two to four weeks, and then threshed to recover the pods. The main products of the industry are nuts, peanut oil and oil cake.

In Australia, peanuts for crushing for oil arise as a by-product in the production of nuts for edible purposes. The oil is used extensively as a cooking and salad oil and in the manufacture of margarine.

The production of peanuts in Australia is confined mainly to Queensland, although small quantities are grown in New South Wales, the Northern Territory and, in some years, Western Australia.

Lupins. The lupin is an annual legume with a growing season closely following that of winter cereals. It prefers well drained soil but is otherwise fairly adaptable. In the past a small amount has been grown for grazing but a recent rapid expansion has followed the development in Australia of lupins with alkaloid-free seed. The seed has a high protein content and is finding use as a substitute for soya protein in human and animal food preparations. The main producing area is in the south-west of Western Australia.

SELECTED OILSEED CROPS: AREA, PRODUCTION AND GROSS VALUE

	Specialised				*Other*			
Year	*Linseed*	*Rapeseed*	*Safflower*	*Sunflower*	*Soybeans*	*Peanuts*	*Cotton(a)*	*Lupins*
AREA ('000 hectares)								
1949–50 .	11.7	..	..	2.9	..	7.2	1.1	n.a.
1954–55 .	7.9	..	..	1.3	..	16.0	3.1	
1959–60 .	40.3	..	4.7	4.1	0.5	17.3	8.2	
1964–65 .	54.2	..	19.2	3.1	1.8	18.6	15.3	
1969–70 .	49.2	4.9	10.8	26.0	5.0	33.6	31.3	
1972–73 .	16.3	77.1	10.6	241.8	28.0	29.1	43.6	45.6
1973–74 .	17.8	16.8	12.3	150.6	40.8	25.9	41.7	66.6
1974–75 .	35.6	11.8	36.2	209.6	45.9	24.1	38.5	124.6
1975–76 .	15.7	15.9	39.8	136.9	26.3	27.3	29.8	139.3
1976–77p .	15.8	7.6	14.5	133.5	32.9	30.1	34.4	n.a.
PRODUCTION ('000 tonnes)								
1949–50 .	6.5	..	..	1.7	..	8.1	0.3	n.a.
1954–55 .	5.5	..	..	0.7	..	14.7	1.6	
1959–60 .	27.2	..	2.3	2.8	0.5	19.1	4.3	
1964–65 .	47.3	..	12.7	2.0	1.1	10.5	28.6	
1969–70 .	36.7	4.5	4.2	13.2	5.0	42.7	84.9	
1972–73 .	9.8	25.0	4.2	102.1	37.9	38.5	96.6	15.5
1973–74 .	14.3	10.6	6.9	84.3	62.5	29.2	86.4	51.2
1974–75 .	33.0	8.5	30.5	113.4	73.7	32.0	103.3	87.8
1975–76 .	12.2	11.9	18.2	80.4	44.6	35.5	80.1	103.9
1976–77p .	16.6	7.9	6.9	n.a.	n.a.	n.a.	n.a.	n.a.
GROSS VALUE ($ million)								
1949–50 .	0.8	..	..	0.2	..	0.8	0.1	n.a.
1954–55 .	0.7	..	..	0.1	..	2.4	0.4	
1959–60 .	3.8	..	..	0.1	..	3.6	1.1	
1964–65 .	6.5	..	1.2	0.3	..	2.2	7.7	
1969–70 .	4.3	..	0.4	1.5	0.6	9.0	19.1	
1972–73 .	1.0	2.9	0.5	15.4	5.4	10.5	32.6	
1973–74 .	3.1	1.5	1.0	19.4	11.2	10.9	26.6	
1974–75 .	7.5	1.9	7.5	24.0	13.2	12.0	29.3	
1975–76 .	2.1	1.9	2.7	15.7	7.2	15.8	37.5	

(*a*) Additional data is shown on page 309.

Cotton. This annual shrub requires a hot climate and inter-row weed control. Lint (long fibres) is extracted from the seed cotton in the ginneries and is used for yarn. The residue, consisting of linters (short fibres), kernels and hulls (outer seed coat), is treated in oil mills. Linters are used in the manufacture of felts and other materials where fibre length is of little importance. The kernels, when crushed, produce an oil which is used for food and for industrial purposes. The residual meal is a useful high protein stockfeed; the hulls may be used as fuel.

Apart from a few thousand hectares in Queensland, Australia's cotton crop is grown under irrigation. Most of the country's cotton is grown in the Namoi and Macquarie valleys in New South Wales with water provided from the Keepit and Burrendong dams. Cotton introduced into the Ord River area of Western Australia in 1963 had failed by 1975 due to rising production costs and insect infestation. Australian production currently satisfies all the requirements of local mills for short and medium staple cotton and should, in the future, supply the comparatively small quantities of longer staple combing cottons currently imported.

COTTON: AREA, PRODUCTION AND EXPORTS

		Seed cotton(a)		*Cotton seed*	
Year	*Area*	*Quantity*	*Gross value*	*Quantity*	*Export quantity*
	'000 ha	'000 tonnes	$m	'000 tonnes	'000 tonnes
1966–67 . . .	21.5	54.6	12.5	30.4	6.1
1967–68 . . .	31.1	97.4	19.7	54.5	8.3
1968–69 . . .	33.0	101.3	20.7	55.6	6.7
1969–70 . . .	31.3	84.9	19.1	46.2	5.5
1970–71 . . .	34.5	56.8	13.3	33.0	2.5
1971–72 . . .	39.6	132.0	30.1	72.7	6.8
1972–73 . . .	43.6	96.6	32.6	51.3	6.3
1973–74 . . .	41.7	86.4	26.6	49.9	4.0
1974–75 . . .	38.5	103.3	29.3	53.8	3.3
1975–76 . . .	29.8	80.1	37.5	40.6	..
1976–77p . . .	34.4	n.a.	n.a.	48.6	n.a.

(*a*) Before ginning.

Sugar

The growing of sugar cane is restricted to the east coast (from Mossman in northern Queensland south to the Clarence River in northern New South Wales) which has suitable soil and where the average rainfall is over 1000 mm per year, or where irrigation water is available. Queensland accounts for 96 per cent of Australia's cane crop, most of which grows in the tropical zone where sugar is a major industry and source of employment. Cane farms average about 45 hectares.

Australia is the world's third largest exporter of raw sugar. It has a reputation as a reliable supplier and has always fulfilled its quota obligations under the system of quotas, which can be adjusted according to the availability of markets and the commitments under the various international marketing arrangements to which Australia has been a party. Each of the thirty-four mills is assigned a quota of sugar which is translated into cane quotas for growers.

The organisation of the industry is complex: the industry is subject to a degree of supervision by the Federal and Queensland governments, but is largely self-governing. The price of refined sugar for sale is fixed by agreements between the two regulating governments, with the Queensland government controlling raw sugar production and contracts for refining of home consumption needs, and arranging for export marketing of raw sugar.

The Australian sugar industry was the first in the world to introduce mechanical cultivation and harvesting techniques. By 1964 the entire industry was converted to bulk handling. Continuing improvements in bulk handling equipment have substantially increased the efficiency in bulk handling installations. The total storage capacity of the six Australian bulk sugar terminals is nearly one and a half million tonnes—the largest storage facilities in the world.

Production. Climatic conditions in some areas in New South Wales are such that the crop matures in from 20–24 months, whereas in Queensland a period from 12–16 months is sufficient. Allowance should be made in interpreting the figures below for the disparity in the maturing periods in the respective States.

SUGAR CANE: AREA, PRODUCTION AND YIELD

	New South Wales					Queensland				
	Sugar cane			Raw sugar		Sugar cane			Raw sugar	
Year	Area harvested	Production	Yield	Quantity	Yield	Area harvested	Production	Yield	Quantity	Yield
	'000 ha	'000 tonnes	t/ha	'000 tonnes	t/ha	'000 ha	'000 tonnes	t/ha	'000 tonnes	t/ha
1949–50 . .	3.4	336.0	97.5	41.4	12.0	110.4	6,622.6	60.0	910.8	8.3
1954–55 . .	2.7	225.8	85.0	26.7	10.1	148.8	10,022.6	67.4	1,322.1	8.9
1959–60 . .	5.8	583.7	101.2	71.8	12.5	121.3	8,563.0	70.6	1,237.3	10.2
1964–65 . .	7.9	796.7	101.3	96.7	12.3	182.5	14,515.6	79.5	1,884.6	10.3
1969–70 . .	8.0	848.6	105.7	99.3	12.4	204.8	14,935.7	72.9	2,114.4	10.3
1972–73 . .	9.4	841.1	89.9	102.9	12.9	232.3	18,087.2	77.9	2,714.1	11.7
1973–74 . .	9.9	999.5	100.8	121.1	12.2	215.9	18,278.5	84.7	2,405.0	11.1
1974–75 . .	9.9	996.7	100.6	121.0	12.2	243.2	19,421.1	79.9	2,727.5	11.2
1975–76 . .	11.0	889.7	80.8	104.1	9.5	245.8	21,068.9	85.7	2,751.4	11.2
1976–77p .	11.6	1,074.2	92.6	n.a.	n.a.	276.6	22,269.4	80.5	n.a.	n.a.

The average yields of sugar per hectare has increased to 11 tonnes owing to the development of new varieties and improved practices.

For many years Australia sold its sugar in each of three distinct market categories—the domestic market, sales under formal agreement (Commonwealth Sugar Agreement and the U.S. Sugar Act), and the residual world free market. Following international failure to regulate and stabilise world sugar market prices, the loss of the United Kingdom to the EEC and the expiry of the U.S. Sugar Act, the industry developed long-term export contracts with the Near East. These long-term contracts and the domestic market provide secure outlets for about 65 per cent of the industry's capacity, the balance of the export sugar going on the free market.

SUGAR: AREA, PRODUCTION, EXPORTS AND CONSUMPTION

		Production			Exports		Apparent consumption in Australia(a)	
		Sugar cane		Raw sugar	Raw and refined sugar			
	Area harvested	Quantity	Gross value	Quantity	Quantity	Value f.o.b.	Total	Per head
	'000 ha	mil. tonnes	$m	mil. tonnes	mil. tonnes	$m	'000 tonnes	kg
1949–50 . . .	113.9	7.0	36.0	1.0	0.4	28.4	424.1	47.0
1954–55 . . .	151.4	10.2	77.5	1.3	0.7	31.1	465.2	45.6
1959–60 . . .	127.1	9.1	87.1	1.3	0.7	53.5	508.9	44.6
1964–65 . . .	190.4	15.3	130.6	2.0	1.3	114.0	563.2	44.7
1969–70 . . .	212.8	15.8	148.1	2.2	1.4	116.1	618.9	49.7
1972–73 . . .	241.7	18.9	230.2	2.8	2.1	249.8	664.4	50.8
1973–74 . . .	225.9	19.3	218.9	2.5	1.8	222.3	666.0	50.2
1974–75 . . .	253.1	20.4	490.7	2.8	2.0	644.5	660.9	49.1
1975–76 . . .	256.8	22.0	435.6	2.9	2.0	569.7	n.a.	n.a.
1976–77p . .	288.2	23.3	467.0	n.a.	2.6	637.5	n.a.	n.a.

(a) Total quantity of sugar available for consumption in Australia comprises refined sugar and refined sugar contained in manufactured products.

A brief outline of the development of the industry was included in earlier issues of the Year Book (*see* No. 38, page 985). Details of recent sugar Agreements and marketing arrangements will be found in Year Book No. 61, page 843.

Vegetables

Vegetables for human consumption

The wide range of climate in Australia enables most vegetable varieties to be grown in some part of the country. The area sown to vegetables reached a peak of over 200,000 hectares during the last year of the Second World War, but has remained static at around 105,000 hectares since 1970. However yields from most vegetable crops have increased, due in part to irrigation and in part to the control of diseases and insect pests.

Because of the wide climatic range, supplies for main city markets are drawn from widely different areas, depending on the times of maturity of the various crops. Historically, market gardens were located near urban centres and, while many small scale growers still produce crops close to city markets, urban expansion, rising urban land values, improvements in transport and irrigation and developments in freezing, canning and drying have extended the industry far from the cities. Transport costs are reduced by the location of processing establishments in producing areas, although city markets still absorb the bulk of fresh and processed produce.

Potatoes. Potatoes require deep friable soils which, in Australia, are usually basaltic, alluvial or swampy in origin. Fertiliser requirements, which are generally high, vary with the type of soil. While potatoes require only moderate temperatures for growth, the greatest proportion of Australia's potatoes are grown as a summer crop because potato plants are killed by heavy frosts. In recent years an increasing proportion of potatoes has been grown under irrigation and potato growing has become increasingly mechanised, with individual growers having larger areas and becoming more specialised.

Seed certification schemes or approvals which operate in most States provide supplies of seed. In Australia, potatoes are used almost entirely for human consumption or seed. Approximately 25 per cent of Australian potato consumption is in a processed form and this proportion is rising. The main processed potato products are crisps, frozen chips, dehydrated granule and flake, soup, baby foods, salads and canned potatoes.

Potato marketing. The majority of table potatoes are marketed through potato merchants and agents. In some instances they are marketed through a primary merchant and then a secondary merchant (wholesale). In South Australia and Western Australia, potato marketing is controlled by potato marketing boards.

Overall, probably more than half of the potatoes used for processing are purchased by forward contract made directly by the processor with the grower. The remainder of the processors' requirements are usually purchased from merchants and, in some instances, merchants' contracts with growers as agents for processors. Seed potatoes are purchased either through a merchant or directly from a seed grower.

APPARENT CONSUMPTION OF VEGETABLES

(Kilograms per head per year)

Year	*Potatoes*	*Other root and bulb vegetables(a)*	*Tomatoes*	*Leafy and green vegetables*	*Other vegetables*	*Total, fresh equivalent weight*
1959–60	52.3	15.4	11.5	18.1	16.2	113.5
1964–65	41.9	15.8	14.2	20.9	17.7	110.4
1969–70	55.5	17.7	12.5	21.4	19.1	126.0
1971–72	58.8	17.8	15.0	21.7	17.7	131.0
1972–73	48.6	17.4	17.2	20.3	15.1	118.6
1973–74	46.3	18.2	15.1	21.3	15.2	116.1
1974–75	52.5	18.5	10.2	22.0	15.6	118.8

(*a*) Includes sweet potato from 1968–69.

VEGETABLES FOR HUMAN CONSUMPTION—AREA AND PRODUCTION

	French and runner beans	*Cabbages and brussel sprouts*	*Carrots*	*Cauli-flowers*	*Onions*	*Green peas*	*Potatoes*	*Tomatoes*	*Total vege-tables*
				AREA ('000 hectares)					
1949–50	6.4	3.0	1.9	2.9	3.0	16.2	54.2	7.7	120.0
1954–55	5.7	2.5	1.6	2.7	3.2	14.9	43.5	6.0	101.6
1959–60	6.8	2.5	1.9	2.8	3.8	18.3	43.9	6.4	107.3
1964–65	6.8	2.4	2.3	2.8	3.9	23.5	35.6	6.6	105.6
1969–70	8.1	2.6	3.0	2.8	4.2	25.0	43.3	7.2	119.2
1972–73	7.5	2.6	2.9	2.6	4.5	21.5	36.6	7.7	110.9
1973–74	8.3	2.8	3.2	2.5	4.2	19.4	34.1	7.1	105.5
1974–75	8.6	2.9	3.5	2.5	4.4	18.5	37.6	7.9	110.5
1975–76	7.6	2.7	3.3	2.6	4.0	19.0	33.8	7.9	105.9
1976–77p	n.a.	n.a.	n.a.	n.a.	3.8	n.a.	37.4	8.4	109.1
				PRODUCTION ('000 tonnes)					
1949–50	16.0	82.8	31.5	85.9	48.5	31.6	478.6	103.1	
1954–55	19.8	67.3	32.7	73.7	49.8	35.8	475.7	89.4	
1959–60	27.0	70.0	47.1	82.0	57.7	59.2	588.5	128.2	
1964–65	30.8	67.0	63.6	75.5	70.8	102.2	516.2	149.6	
1969–70	39.9	69.9	82.1	93.8	85.5	137.4	761.8	162.9	
1972–73	35.5	70.7	81.6	77.8	93.2	106.7	720.7	177.5	
1973–74	40.2	72.9	86.5	72.8	93.7	102.9	649.2	135.6	
1974–75	40.9	84.6	97.6	71.9	108.1	121.6	736.0	168.9	
1975–76	40.2	73.5	81.4	70.5	94.6	101.1	696.5	162.2	
1976–77p	n.a.	n.a.	n.a.	n.a.	93.8	n.a.	n.a.	171.4	

VEGETABLES FOR HUMAN CONSUMPTION—VALUE OF PRODUCTION AND VALUE OF EXPORTS

Year	*Gross value*	*Export value f.o.b.(a)*	*Year*	*Gross value*	*Export value f.o.b.(a)*
	$m	$m		$m	$m
1949–50	51.7	3.8	1972–73	181.4	8.1
1954–55	76.9	2.7	1973–74	239.7	7.2
1959–60	85.8	1.8	1974–75	257.6	7.9
1964–65	134.4	2.7	1975–76	275.4	7.9
1969–70	138.3	6.3	1976–77	290.0	n.a.

(*a*) Fresh, frozen, simply or otherwise preserved or prepared vegetables.

PROCESSED VEGETABLES: AUSTRALIAN PRODUCTION
('000 tonnes—unless otherwise stated)

Item	*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Quick frozen vegetables—					
Beans	19.1	18.3	22.2	22.8	23.5
Peas	40.4	41.6	38.1	41.0	35.5
Potatoes	32.1	34.5	20.1	14.7	36.0
Other			12.8	17.7	20.8
Vegetables preserved, canned or bottled (excluding pickles, etc.) (*a*)—					
Asparagus	5.2	5.9	6.7	5.6	3.4
Beans—Green	5.8	5.8	5.9	4.1	6.7
Baked (including pork and beans)	21.3	22.0	23.2	24.8	22.1
Beetroot	29.6	23.6	27.3	30.0	26.1
Cabbage (including sauerkraut)	1.2	1.6	1.6	1.4	1.3
Carrots	2.3	1.8	4.2	5.5	5.0
Cucumber (including pickled)	1.6	1.7	2.8	2.4	2.1
Gherkins—pickled	1.5	1.5	1.8	1.7	1.8
Olives—pickled	0.4	0.7	1.2	0.9	0.7
Onions (including pickled)	2.2	2.1	2.4	2.6	2.4
Peas—Green	11.9	11.0	13.1	12.2	10.5
Sweetcorn	6.6	5.1	7.9	8.9	6.8
Tomatoes (excluding canned pulp)	8.6	5.6	6.8	9.8	12.0
Tomato juice (million litres)	15.1	9.8	9.8	14.2	5.5

(*a*) Canned in tinplate or aluminium cans; bottled in glass bottles.

For further information on vegetables *see* the following publications: *Crop Statistics* (7302.0), *Production Bulletin No. 3—Food, Drink and Tobacco* (8359.0), *Apparent Consumption of Foodstuffs and Nutrients* (4306.0) and *Value of Agricultural Commodities Produced* (7503.0).

Fruit (excluding grapevines)

The varieties of fruit grown differ in various parts of the States, ranging from pineapples, papaws and mangoes in the tropics to strawberries, raspberries and currents in the colder parts of the temperate zone. In New South Wales, citrus fruit (oranges, lemons, etc.) and bananas are the principal crops, although apples, peaches, plums, pears and cherries are grown extensively. The principal fruits grown in Victoria are apples, pears, peaches, oranges, and apricots. In Queensland, apples, pineapples, bananas, oranges, mandarins, peaches and plums are the major fruits cultivated. In South Australia, in addition to oranges, apples, peaches, apricots and pears, almonds and olives are grown extensively. In Western Australia, apples oranges, plums, and pears are the chief fruits. In Tasmania, apples are by far the most important type of fruit grown, but small fruits, such as currants, raspberries and gooseberries, are also grown extensively, the balance of the area being occupied mainly with pears and apricots.

Although fruit occupies less than 1 per cent of the total area planted to crops, the value of fruit production is currently about 10 per cent of the total value of crop production. Fruit exports in recent years peaked at $90 million in 1972–73, although this has fluctuated due to price and quantity changes. With the loss of the U.K.'s market after its entry into the EEC and other factors such as rising shipping costs and improved storage techniques in the northern hemisphere, export markets have been reduced.

SELECTED FRUIT STATISTICS

	Orchard fruit: number of trees ('000)				*Berry and other fruits: area (ha)*			
Year	*Apples*	*Oranges*	*Pears*	*Peaches*	*Bananas*	*Pineapples*	*Small, and berry fruit*	*Total area of fruit (ha)*
1949–50	8,666	4,029	2,154	2,596	12,007	3,891	2,429	113,283
1954–55	8,502	4,349	2,146	2,318	12,335	5,319	1,377	115,542
1959–60	9,121	4,463	2,449	2,607	12,832	5,112	1,649	116,956
1964–65	10,201	5,603	2,716	3,002	10,830	4,687	1,347	125,714
1969–70	9,935	5,562	2,694	2,867	10,649	6,445	1,219	125,233
1972–73	8,737	5,351	2,447	2,521	9,619	6,281	1,214	115,499
1973–74	7,701	5,193	2,248	2,092	8,880	6,224	1,158	108,803
1974–75	7,004	5,076	2,246	1,940	7,982	5,851	1,084	102,770
1975–76	6,520	5,059	1,853	1,844	7,694	5,873	984	99,822
1976–77p	6,285	5,153	1,808	1,633	7,600	5,900	n.a.	91,100

Year	*Apples*	*Apricots*	*Bananas*	*Cherries*	*Oranges*	*Peaches*	*Pears*	*Pine-apples*	*Plums and Prunes*
				PRODUCTION: ('000 tonnes)					
1949–50	175.7	31.9	85.9	5.8	109.0	47.0	58.4	46.0	21.2
1954–55	222.5	33.6	79.7	6.7	124.8	62.9	96.1	69.9	21.6
1958–60	268.0	33.7	124.8	6.7	162.2	59.5	107.5	90.3	23.7
1964–65	360.0	42.9	127.7	7.7	235.9	103.7	120.8	83.1	28.1
1969–70	424.1	39.5	131.1	7.3	234.3	112.5	190.5	120.9	25.9
1972–73	431.3	43.6	123.8	9.9	351.7	116.1	190.2	126.4	27.4
1973–74	334.7	37.2	124.7	8.7	309.9	81.1	162.2	114.8	23.1
1974–75	368.0	27.3	118.3	9.8	340.8	90.5	158.0	110.5	23.2
1975–76	274.8	26.2	97.1	9.7	361.5	79.1	140.1	102.9	26.5
1976–77p	n.a.	n.a.	103.0	n.a.	323.0	74.0	n.a.	111.9	n.a.
				GROSS VALUE OF PRODUCTION ($ million)					
1949–50	15.4	2.7	7.8	1.5	9.5	3.4	4.2	2.6	1.6
1954–55	27.9	4.0	14.7	2.1	14.3	7.2	9.3	4.7	2.4
1959–60	34.3	4.0	15.2	2.7	14.8	6.6	10.7	3.8	3.2
1964–65	46.6	5.5	18.6	3.5	23.5	12.7	14.8	5.5	4.5
1969–70	56.1	7.4	25.0	4.3	29.0	15.1	23.8	7.1	5.8
1971–72	50.3	7.8	21.0	5.9	30.4	15.9	19.4	9.6	5.2
1972–73	63.5	9.2	28.2	5.7	33.6	17.7	23.9	12.2	6.0
1973–74	63.7	9.1	21.9	7.5	33.7	14.5	24.9	11.0	7.0
1974–75	73.6	9.0	31.3	10.3	43.3	24.2	26.2	11.9	8.5
1975–76	73.7	9.2	39.8	8.6	46.0	18.3	19.6	14.2	9.4

Processed fruit and fruit products

After rapid expansion in the 1960s, output of canned fruit levelled off and then declined following reduced plantings of peaches and pears. Production of natural fruit juices has doubled in the last seven years and this has reflected improvements in marketing methods, effective promotion and public awareness of the nutritious value of natural juices. Rapidly rising packing and marketing costs for fresh citrus has also influenced the swing to processing.

PRODUCTION

Derived from the Annual Manufacturing Census and the recorded monthly production

	Unit	1972–73	1973–74	1974–75	1975–76	1976–77p
Fruit juice based cordials and syrups(a)	mil litres	62.4	70.6	64.3	73.7	n.a.
Natural fruit juice(b)—						
Single strength . . .	mil litres	186.8	166.3	179.8	n.a.	n.a.
Concentrated(c) . . .	,,	18.2	10.5	13.8	n.a.	n.a.
Cider and perry . . .	,,	10.5	11.1	10.5	n.a.	n.a
Canned or bottled fruit (excl. canned pulp) . . .	'000 tonnes	272.9	213.1	240.2	186.4	177.2
Jams	'000 tonnes	34.8	32.7	30.2	31.1	27.0

(a) Containing at least 25 per cent by volume of pure fruit juices. (b) Excludes fruit drinks consisting of diluted fruit juices with or without artificial flavourings. (c) Excludes grape must, and comprises actual quantity of concentrated juices.

APPARENT CONSUMPTION OF FRUIT

(Fresh fruit equivalent: kg per head per year)

	Fresh						
Year	*Oranges*	*Other citrus*	*Other fresh fruit*	*Jams, conserves, etc.*	*Dried tree fruit*	*Canned fruit*	*Total, fresh equivalent weight*
1959–60 . .	15.1	3.5	39.0	3.9	1.0	6.9	71.5
1964–65 . .	19.3	3.9	35.5	3.5	0.8	8.9	82.0
1969–70 . .	17.7	6.5	37.1	3.0	0.7	9.9	92.4
1971–72 . .	20.6	7.1	42.4	2.9	0.7	9.5	93.5
1972–73 . .	25.2	5.4	36.3	2.5	0.6	10.5	91.5
1973–74 . .	25.3	6.5	34.1	2.2	0.7	10.3	90.9
1974–75 . .	31.3	6.1	33.2	2.6	0.5	10.2	92.8

Fruit exports

About a third of Australia's fruit export returns are from fresh and or chilled apples, pears and oranges, while canned or bottled deciduous fruit—peaches, pears, etc.—are increasing in importance.

FRUIT EXPORTS: VALUE F.O.B.

($ million)

	Fresh and chilled			Canned or bottled				
Year	*Apples*	*Pears*	*Oranges*	*Apricots*	*Peaches*	*Pears*	*Pine-apples*	*Fruit salad*
1949–50. .	4.9	1.3	1.2	0.7	2.3	2.2	2.2	0.2
1954–55. .	10.9	4.4	1.5	3.9	10.3	9.2	5.6	0.7
1959–60. .	12.2	3.9	1.8	1.5	6.6	11.8	3.1	0.1
1964–65. .	21.1	5.3	3.3	1.1	10.6	10.9	1.3	2.1
1969–70. .	20.4	6.5	2.9	1.6	14.8	10.7	1.8	5.0
1972–73. .	18.0	9.1	4.0	2.1	18.6	15.5	1.0	6.8
1973–74. .	20.1	7.7	3.2	1.8	16.8	15.4	1.1	6.0
1974–75. .	16.1	8.2	2.1	1.5	9.7	11.9	1.3	5.7
1975–76. .	12.8	10.1	2.9	1.1	13.3	10.5	1.6	4.1
1976–77p .	9.4	8.1	1.0	0.9	14.5	16.1	1.7	4.5

FRUIT: VALUE OF PRODUCTION AND EXPORTS
($ million)

	Gross value					Gross value			
Year	*Orchard fruit*	*Berry and other*	*Total*	*Exports(a) value f.o.b.*	*Year*	*Orchard fruit*	*Berry and other*	*Total*	*Exports(a) value f.o.b.*
1949–50 .	40	12	53	26	1972–73 .	177	47	223	90
1954–55 .	72	22	93	53	1973–74 .	178	39	217	87
1959–60 .	82	22	104	47	1974–75 .	215	51	267	71
1964–65 .	118	28	146	64	1975–76 .	206	63	269	68
1969–70 .	154	39	193	73	1976–77p	n.a.	n.a.	294	n.a.

(*a*) Fruit and nuts, excluding grapes (fresh and dried); includes fresh, dried and preserved and fruit preparations.

Fruit imports

Imports of fresh fruit are negligible, while most dried fruit imports consist of dates from Iran, the United States of America and China (excluding Taiwan Province).

Marketing and regulation of the fruit industry

Apples and pears. The Australian Apple and Pear Corporation replaced the Australian Apple and Pear Board in September 1974, absorbing that Board's export control and regulation functions. The Corporation has a wider role than the former Board, e.g. powers to trade under certain circumstances, to charter shipping for such trade, to borrow funds, subject to Government approval, for trading operations, and to promote and research both fresh and processed apple and pear products.

A Government-approved stabilisation scheme was introduced with the 1971 season. This plan establishes average seasonal returns for each variety, which are then compared with the agreed support price for each variety to determine the extent of the deficiency or surplus.

Fruitgrowing Reconstruction Scheme. For details *see* Year Book No. 61, pages 846–7.

Canned Fruit. For details on the operations of the Australian Canned Fruits Board and the Australian Canned Fruit Sales Promotion Committee *see* Year Book No. 61, page 847.

For further data on fruits and fruit products *see* the bulletins *Fruit Statistics* (7303.0), *Production Bulletin No.* 3 *Food, Drink and Tobacco* (8359.0), *Apparent Consumption of Foodstuffs and Nutrients* (4306.0) and *Value of Agricultural Commodities Produced* (7503.0).

Grapevines

Grapes require a warm hot climate and predominantly winter rainfall. Freedom from late spring frosts is essential. They are grown for wine-making, drying and, to a minor extent, for table use. In Australia, wine is produced very largely from irrigated crops, as are dried fruits. Some of the better known wine producing areas are the Murray Valley (South Australia and Victoria), Barossa Valley and Southern Vales Areas (South Australia), the Murrumbidgee Irrigation Areas and the Hunter Valley (New South Wales), the Mildura, Rutherglen and Stawell districts (Victoria), and the Swan Valley (Western Australia). Nearly all the dried fruit is produced along the River Murray and its tributaries, with small localised areas in other States.

VITICULTURAL STATISTICS: AREA, PRODUCTION AND VALUE

			Production: grapes used for—			
	Area				Total(a)	
Year	*Bearing*	*Total*	*Winemaking*	*Drying*	*Quantity*	*Gross value*
	'000 ha	'000 ha	'000 tonnes fresh weight	'000 tonnes fresh weight	'000 tonnes fresh weight	$m
1949–50 . .	49.7	54.8	165.3	260.8	438.8	17.8
1954–55 . .	51.5	55.2	131.2	320.6	467.0	24.6
1959–60 . .	49.7	52.7	152.0	282.6	452.0	29.4
1964–65 . .	50.7	56.2	228.5	436.6	690.5	50.4
1969–70 . .	52.1	60.8	341.1	386.3	757.6	58.7
1972–73 . .	59.7	68.5	340.3	243.5	603.2	64.9
1973–74 . .	62.5	70.0	332.6	206.8	552.2	83.2
1974–75 . .	64.0	71.3	430.2	280.5	727.8	101.4
1975–76 . .	63.4	70.9	425.8	270.8	711.9	102.3
1976–77p . .	n.a.	71.8	n.a.	n.a.	n.a.	123.0

(*a*) Includes grapes used for table and other purposes.

The bearing area of grapes has risen by about 11 per cent in the last five years due mainly to substantial new plantings of specialised winegrapes. Grape production has increased markedly in winegrapes (20 per cent since 1971–72). However, with grapes dried, the quantity is the residual between multi-purpose grape production and winery requirements—weather permitting and an increased diversion of grapes to winemaking has resulted in a decline in grapes dried. The production of multi-purpose grapes has not shown much change. Since the domestic consumption of dried vine fruit is stable at about 1.5 kg per head per year, reductions in grapes dried will result in lower exports. The Industries Assistance Commission has recommended that equalisation should be replaced by a two pool pricing system in which growers would have quotas for the limited domestic market while their remaining production would be valued at export prices.

GRAPE PRODUCTION : END USAGE

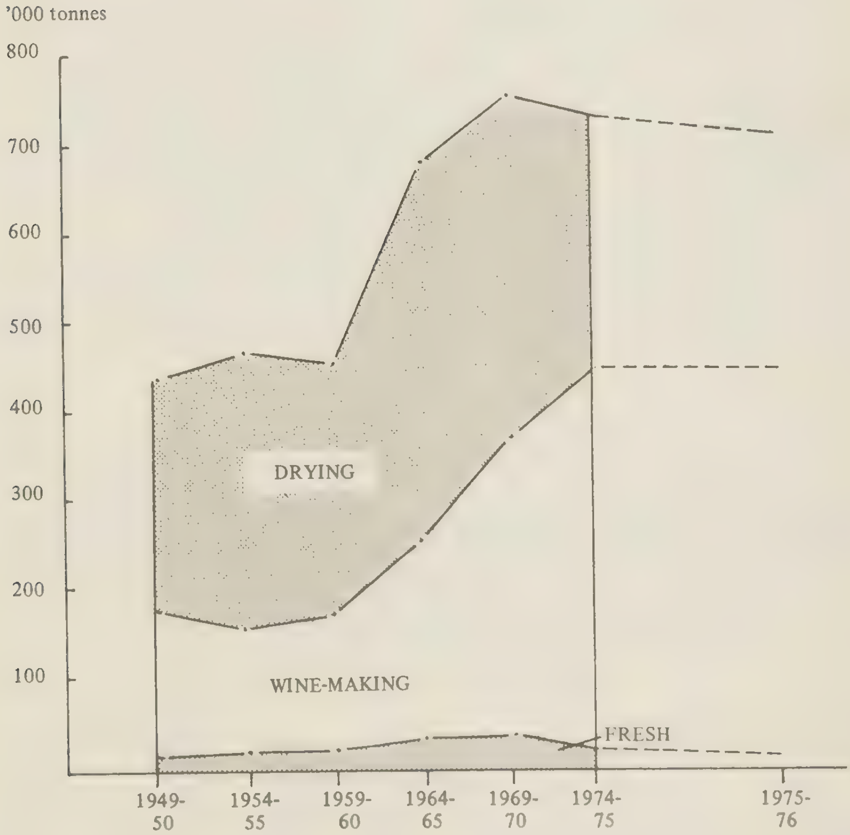


PLATE 32

DRIED VINE FRUIT: PRODUCTION, EXPORTS AND CONSUMPTION
(Dried weight)

	Production				*Exports*				*Consumption of dried vine fruit*
							Total		
Year	*Raisins*	*Sultanas*	*Currants*	*Total*	*Raisins/ sultanas*	*Currants*	*Quantity*	*Value f.o.b.*	
	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	$m	kg
1949-50 . .	5.5	49.4	14.0	68.9	29.0	7.2	36.2	2.6	n.a.
1954-55 . .	9.9	60.8	11.3	82.0	60.9	8.5	69.4	15.3	n.a.
1959-60 . .	10.5	52.3	8.2	70.9	46.4	4.6	51.0	16.7	2.1
1964-65 . .	11.6	85.3	12.7	109.6	64.6	6.6	71.3	22.3	2.5
1969-70 . .	4.3	81.4	8.6	94.3	41.2	2.8	44.1	14.3	1.5
1972-73 . .	5.5	45.9	5.7	57.0	70.0	2.6	72.6	24.8	1.8
1973-74 . .	3.2	40.6	3.6	47.4	25.6	1.2	26.9	17.7	1.8
1974-75 . .	5.2	53.4	6.3	64.9	31.4	0.2	31.6	20.0	1.7
1975-76 . .	5.6	55.3	4.3	65.2	51.3	2.4	53.7	27.1	1.3
1976-77p . .	n.a.	n.a.	n.a.	n.a.	43.4	0.9	44.4	26.7	n.a.

Wine industry

Australia produces wine of every type and also brandy. In recent years there has been a distinct trend towards greater consumption and production of unfortified or table wines. Until 1957-58 production of these wines (which include burgundy, claret, riesling, sauterne and sparking wines) was less than half that of the fortified varieties (sherries, ports, etc.). By 1970, however, table wines had exceeded the volume of fortified wines.

PRODUCTION, CONSUMPTION AND EXPORT OF WINES

Year	*Production*	*Exports*		*Consumption in Australia per head*
		Quantity	*Value f.o.b.*	
	mil. litres	mil. litres	$m	litres
1949-50 .	154.4	5.0	1.0	6.8
1954-55 .	108.9	5.7	1.6	5.0
1959-60 .	129.3	7.9	2.5	5.3
1964-65 .	176.9	9.1	3.5	5.6
1969-70 .	286.9	5.9	3.0	8.9
1971-72 .	290.2	8.0	4.2	9.0
1972-73 .	279.9	4.7	3.2	9.9
1973-74 .	294.7	8.2	5.6	11.2
1974-75 .	361.2	6.5	5.3	12.5
1975-76 .	(*a*)	6.2	5.5	13.3
1976-77p	(*a*)	5.0	5.4	13.7

(*a*) Not available. There has been a change in the scope of the collection from which this data has been compiled.

For further details on viticulture, dried vine fruit, wine etc. *see* the following publications: *Fruit Statistics* (7303.0), *Sales of Australian Wine and Brandy* (8504.0) and an unpublished limited circulation issue *Viticulture Statistics* which contains varietal data collected as an additional collection to the annual Agricultural Census.

Miscellaneous crops

The principal crops not covered above include fodder crops, tobacco, hops and nursery crops which, in 1975-76, had gross values as follows:

Crops	*Gross value*	*Percent of total crop gross value*
	$m	
Fodder crops (hay)	25.5	0.8
Tobacco	50.1	1.6
Hops	3.1	0.1
Mushrooms	10.0	0.3
Nurseries	48.0	1.5

Fodder crops

As well as crops grown specifically for grain, considerable areas of Australia are devoted to fodder crops. These crops are utilised either for grazing (as green feed), or conserved as hay, ensilage, etc.

This development of fodder conservation as a means of supplementing pasture and natural sources of stockfeed is the result of the comparatively unreliable nature of rainfall in Australian agricultural and pastoral areas.

FODDER CROPS: AREA AND PRODUCTION

Year	*Hay(a)*			*Green feed or silage(b)*	
		Production			
	Area	*Quantity*	*Gross value*	*Area*	*Silage made*
	'000 ha	'000 tonnes	$m	'000 ha	'000 tonnes
1971–72 . . .	341	1,247	21.3	998	767
1972–73 . . .	453	1,224	35.1	1,204	484
1973–74 . . .	325	1,034	29.9	1,097	888
1974–75 . . .	216	669	20.4	853	532
1975–76 . . .	230	738	25.5	752	395
1976–77p . . .	292	n.a.	n.a.	730	n.a.

(*a*) Principally oaten and wheaten hay. (*b*) Principally from oats, barley, wheat and forage sorghum.

FARMSTOCKS OF CEREAL GRAINS, HAY AND SILAGE
('000 tonnes)

At 31 March	*Cereal grains*				
	Barley	*Oats*	*Wheat*	*Hay*	*Silage*
1972	636	1,126	815	7,955	1,380
1973	570	798	839	5,309	1,040
1974	609	1,043	849	7,157	1,399
1975	442	861	731	6,582	1,250
1976	494	918	769	5,684	1,096

ON FARM CONSUMPTION OF MAJOR GRAINS AND HAY: CONSUMED BY LIVESTOCK
('000 tonnes)

Year	*Cereal grains*			*Hay*		
	Barley	*Oats*	*Wheat*	*Cereal hay*	*Lucerne hay*	*Other hay*
1971–72 . .	415	537	436	1,130	1,026	3,261
1972–73 . .	540	791	634	1,167	1,045	3,030
1973–74 . .	474	591	458	762	664	2,539
1974–75 . .	351	329	388	601	578	2,628
1975–76 . .	337	406	317	684	571	2,845

Tobacco

Tobacco is a summer-growing annual which requires a temperate to tropical climate, adequate soil moisture and a frost-free period of approximately five months. In Australia, almost all tobacco is grown under irrigation. Because of specialised requirements, production is limited to areas with suitable soils and climate. The main centres of production are the Mareeba-Dimbulah districts of north Queensland and Myrtleford in north-eastern Victoria. Other areas where tobacco is grown include Bundaberg, Beerwah and Texas (Queensland), Ashford (New South Wales) and Wangaratta (Victoria). All tobacco grown in Australia is of the flue-cured type except for small quantities of burley tobacco produced mainly in Victoria.

TOBACCO: AREA, PRODUCTION AND OVERSEAS TRADE

Year	Area	Production (dried leaf)	Exports (value)		Imports (value)	
			Unmanufactured	Manufactures	Unmanufactured	Manufactures
	'000 ha	'000 tonnes		$'000		
1949–50	1.9	1.9	..	378	13,776	11,012
1954–55	3.9	3.1	..	529	29,365	5,266
1959–60	8.0	8.8	21	546	24,531	3,024
1964–65	10.6	11.4	205	1,621	18,564	6,299
1969–70	10.8	17.0	240	2,094	24,159	7,816
1971–72	10.0	16.0	118	3,294	18,247	9,950
1972–73	9.6	15.4	78	2,742	16,725	10,841
1973–74	9.3	14.9	79	3,044	20,701	12,161
1974–75	9.2	15.5	34	3,100	26,076	15,474
1975–76	9.2	14.9	27	3,824	30,315	18,994
1976–77p	9.3	n.a.	n.a.	n.a.	n.a.	n.a.

Marketing. In 1965 the Commonwealth and State Governments agreed to a stabilisation plan and an overall marketing quota was decided upon. The plan is administered by the Australian Tobacco Board. Further information on tobacco marketing, research and factories may be found in Year Book No. 61, pages 845–6.

Hops

Hops are grown from perennial rootstocks over deep, well-drained soils in localities sheltered from the wind. The hop-bearing vine shoots are carried upon wire and coir trellises, from which they are later harvested. The green hops are kiln-dried and bleached with sulphur dioxides fumes, following which the cured hops are pressed into bales.

Hop growing in Australia is confined to the Derwent, Huon and Channel areas in the south-east and the Scottsdale-Ringarooma district in the north-east of Tasmania, and the Ovens and King Valleys in Victoria. A small area is also under hops in Western Australia, near Manjimup.

The area planted to hops is about 1,100 hectares, with over 60 per cent in Tasmania. Production is about 2,000 tonnes, most of which is used in breweries.

Mushrooms

Statistics of mushroom growing were collected for the first time in all States for the year ended 30 June 1975, with the exception of New South Wales where they have been collected since 1972–73.

MUSHROOMS: AREA, PRODUCTION, GROSS VALUE AND SPAWN USED

Year	Total area of beds(a) used during year (counted each time cropped)	Production				Total quantity of spawn used during year
				Total		
		For processing	For fresh market	Quantity	Gross value	
	'000 sq m	tonnes	tonnes	tonnes	$m	tonnes
1972–73—						
New South Wales	336.7	2,344	1,531	3,875	3.9	94
1973–74—						
New South Wales	306.4	2,002	1,720	3,723	3.5	95
1974–75—						
New South Wales	338.1	2,329	1,789	4,118	4.8	141
Australia	501.3	(b)2,460	(b)3,463	6,007	7.1	(b)209
1975–76—						
New South Wales	339.7	2,028	2,452	4,480	5.7	139
Australia	461.0	2,231	5,294	7,525	10.0	(b)203
1976–77p—						
New South Wales	361.0	2,353	2,503	4,857	n.a.	150
Australia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

(a) For 'bag-grown' mushrooms, the area has been expressed in terms of the equivalent area of 15 cm fill beds. (b) Incomplete; some individual States' data is either not available for publication or was not collected.

PRODUCTION AND IMPORTS OF CANNED, BOTTLED OR DRIED MUSHROOMS

Year	Production (canned or bottled)	Imports: Dried — Quantity	Imports: Dried — Value f.o.b.	Imports: Canned or bottled — Quantity	Imports: Canned or bottled — Value f.o.b.
	tonnes	tonnes	$'000	'000 litres	$'000
1971–72 . . .	5,643	n.a.	n.a.	n.a.	n.a.
1972–73 . . .	6,006	78	515	1,504	1,027
1973–74 . . .	5,712	119	928	2,494	1,563
1974–75 . . .	6,832	88	664	3,903	2,857
1975–76 . . .	5,416	50	438	3,159	2,466
1976–77p . . .	6,473	n.a.	n.a.	n.a.	n.a.

For further details on mushrooms *see Mushroom Statistics* (7308.0)

Nurseries

AREA USED FOR NURSERY AND CUT FLOWER ACTIVITIES
(Hectares)

Year	Area	Year	Area
1949–50 . .	2,082	1971–72 . .	2,499
1954–55 . .	1,974	1972–73 . .	2,599
1959–60 . .	1,876	1973–74 . .	2,913
1964–65 . .	1,932	1974–75 . .	2,992
1969–70 . .	2,416	1975–76 . .	3,290

Additional information on nursery activities has been collected by some individual States and published by them but it was only for the year 1974–75 that the collection was extended to all States. All known private establishments which undertook the propagation, cultivation or growing-on of plants were included.

NURSERY STATISTICS: 1974-75

1974–75	Nursery products ($'000) — Purchases	Nursery products ($'000) — Sales
New South Wales	3,500	17,391
Victoria	2,996	17,659
Queensland	1,003	5,831
South Australia	899	5,176
Western Australia	925	4,682
Tasmania	276	1,160
Australia	**9,599**	**51,899**
Seeds and bulbs . . .	1,658	2,892
Seedlings	1,121	8,492
Cut flowers (incl. orchids) .	794	10,117
Cultivated turf . . .	98	1,242
Fruit trees and vines . .	746	3,199
Rose bushes	462	2,745
Other shrubs and trees . .	4,719	23,214

For further details on nurseries *see Nursery and Flower Statistics* (7309.0).

Livestock

A detailed account of the various enumerations of livestock in Australia made prior to 1860 was given on page 748 of Year Book No. 35. Since 1861 annual enumerations have been made, based, with few exceptions, on actual collections made through the agency of the State police or by post. Particulars concerning the numbers of each of the principal kinds of livestock in Australia at decennial intervals from 1861 to 1971, and from then on in single years, are given in the following table.

LIVESTOCK: AUSTRALIA, 1861 TO 1977

('000)

Year	*Horses*	*Cattle*	*Sheep*	*Pigs*	*Year*	*Horses*	*Cattle*	*Sheep*	*Pigs*
1861	432	3,958	20,135	351	1951	999	15,229	115,596	1,134
1871	717	4,276	41,594	543	1961	598	17,332	152,679	1,615
1881	1,069	7,527	62,184	816	1971	n.a.	24,373	177,792	2,590
1891	1,522	10,300	97,881	891	1972	n.a.	27,373	162,910	3,199
1901	1,610	8,640	70,603	950	1973	n.a.	29,101	140,029	3,259
1911	2,166	11,745	98,066	1,026	1974	n.a.	30,839	145,175	2,505
1921	2,416	13,500	81,796	764	1975	n.a.	32,793	151,652	2,197
1931	1,793	11,721	110,568	1,072	1976	n.a.	33,434	148,643	2,173
1941	1,666	13,256	122,694	1,797	1977p	n.a.	31,545	135,350	2,221

While livestock numbers (particularly sheep) have increased substantially since 1861, marked fluctuations have taken place during the period, mainly on account of widespread droughts which have from time to time left their impressions on the pastoral history of Australia. These occurred in 1868, 1877, 1883–84, 1892, 1893, 1895, 1901–2, 1912, 1914, 1918, 1919, 1922–23, 1925–26, 1927–28, 1929–30, 1940–41, 1944–45 to 1946–47, and 1965–67. The years in which the numbers of livestock attained their peaks are as follows: horses, 1919 (2,527,000); cattle, 1976 (33,434,000); sheep, 1970 (180,080,000); and pigs, 1973 (3,259,000).

Cattle

Cattle-raising is carried out in all States, the main object in certain districts being the production of stock suitable for slaughtering purposes and in others the raising of profitable dairy herds. While dairy cattle are restricted mainly to coastal districts, beef cattle are more widely distributed in areas such as the tropical area of northern Queensland, the Northern Territory and the Kimberley district in the north of Western Australia. Increasing numbers of beef cattle are being raised in conjunction with sheep. Although cattle numbers declined after 1957 because of drought conditions and heavy slaughterings, they began to rise again in 1960 and in 1964 reached 19,055,000. Again because of drought in the eastern States, this figure declined to 17,936,000 in 1966. There was a continuous increase in the total number of cattle in Australia until 1976.

CATTLE NUMBERS

('000)

31 March	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust. (incl. A.C.T.)*
1950	3,440	2,231	6,305	464	865	275	1,049	14,640
1955	3,461	2,456	7,238	524	861	319	969	15,836
1960	3,841	2,624	7,012	500	1,030	375	1,111	16,503
1965	4,619	3,316	7,393	697	1,258	451	1,067	18,816
1970	5,637	4,462	7,515	1,026	1,681	646	1,179	22,162
1973	7,918	5,464	9,795	1,583	2,182	900	1,237	29,101
1974	8,456	5,840	10,297	1,692	2,330	884	1,321	30,839
1975	8,935	6,192	10,879	1,869	2,544	921	1,434	32,793
1976	9,138	5,868	11,347	1,891	2,654	909	1,603	33,434
1977p	8,350	5,104	11,506	1,608	2,474	819	1,664	31,545

Classification of cattle

CATTLE NUMBERS, BY AGE, SEX, PURPOSE

('000)

Classification	*31 March* 1973	1974	1975	1976	1977p
Milk cattle—					
Bulls used or intended for service	81	77	78	73	67
Cows, heifers and heifer calves	3,778	3,558	3,527	3,407	3,116
House cows and heifers	124	121	122	122	105
Total, milk cattle	*3,984*	*3,757*	*3,727*	*3,602*	*3,289*
Meat cattle—					
Bulls used or intended for service	611	651	702	687	626
Cows and heifers (1 year and over)	12,660	13,800	14,897	15,202	14,013
Calves under 1 year	6,957	7,079	7,751	8,055	7,382
Other cattle (1 year and over)	4,889	5,551	5,716	5,888	6,235
Total, meat cattle	*25,117*	*27,082*	*29,066*	*29,833*	*28,257*
Total, all cattle	**29,101**	**30,839**	**32,793**	**33,434**	**31,545**

Comparison with other countries

WORLD CATTLE NUMBERS

(Millions)

(Compiled from USDA Foreign Agriculture Circulars)

Country	*1974*	*1975*	*Country*	*1974*	*1975*
Argentina	57	58	European Economic Community	80	79
Australia	31	34	India	239	241
Brazil	88	91	Mexico	28	28
China (excluding Taiwan Province	93	93	United States of America	128	132
			U.S.S.R.	106	109
Columbia	23	23			
Ethiopia	25	25	**Total**	**1,317**	**1,343**

Beef cattle production is often combined with cropping, dairying and sheep and has gained in importance, with good market prospects. In the north (north of the 26th parallel), cattle properties are very large, pastures are generally unimproved and fodder crops are rare. Beef is usually the only product and herd sizes are large. The industry is more intensive in the south because of the more favourable environment including more improved pasture.

For further details on cattle *see Livestock Statistics* (7203.0).

Sheep

With the exception of a short period in the early eighteen-sixties, when the flocks in Victoria outnumbered those of New South Wales, the latter State has occupied the premier position in sheep-raising. Western Australia is the second largest sheep raising State followed by Victoria. Sheep numbers reached a peak in Australia in 1970. They then declined up to March 1973 as producers turned off large numbers for slaughter and moved from wool-growing towards beef production. By 1976 the numbers had increased to 148,642,000, but in March 1977 the numbers had fallen to 135,300,000, the lowest since 1955.

SHEEP NUMBERS

(Millions)

31 March	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust. (incl. N.T., A.C.T.)*
1950	53.3	19.2	17.6	9.5	10.9	2.2	112.9
1955	59.2	22.3	20.2	12.8	13.4	2.6	130.8
1960	71.0	26.6	23.3	14.0	16.4	3.5	155.2
1965	72.4	30.4	24.0	17.3	22.4	3.8	170.6
1970	72.3	33.2	16.4	19.7	33.6	4.6	180.1
1973	52.0	24.1	13.3	15.7	30.9	3.8	140.0
1974	53.3	25.8	13.1	16.4	32.5	4.0	145.2
1975	55.0	26.4	13.9	17.6	34.5	4.1	151.7
1976	53.2	25.4	13.6	17.3	34.8	4.2	148.6
1977p	49.7	21.9	13.3	15.1	31.1	4.0	135.3

SHEEP, BY AGE AND SEX

(Millions)

	Sheep: 1 year and over					
31 March	*Rams*	*Breeding ewes*	*Other ewes*	*Wethers*	*Lambs and hoggets (under 1 year)*	*Total, sheep and lambs*
1950	1.5	52.1	7.0	29.3	23.0	112.9
1955	1.6	58.6	7.8	37.6	25.1	130.8
1960	1.9	68.5	9.3	43.0	32.5	155.2
1965	2.0	75.6	9.0	49.3	34.8	170.6
1970	2.2	85.5	6.5	45.4	40.5	180.1
1973	1.8	68.7	6.7	34.7	28.1	140.0
1974	1.8	70.0	5.8	34.6	32.9	145.2
1975	1.9	70.6	7.0	37.1	35.0	151.7
1976	1.9	68.5	7.7	37.5	33.1	148.6
1977p	1.7	64.7	6.3	34.8	27.8	135.3

The sheep and wool industry is the most important rural industry in Australia; in 1976–77 provisional value of production data showed that the combined value of wool and sheep slaughtered accounted for over one-fifth the gross value of all agriculture. This proportion varies with wool and meat prices and seasonal conditions. In 1975 Australia had 15 per cent of the world's woolled sheep but produced 30 per cent of the world's greasy wool output. In addition, in 1976–77 the sheep industry produced half a million tonnes of mutton and lamb, a big decrease from the record production of 956,000 tonnes in 1971–72, which resulted from high slaughtering rates linked to very low wool prices prevailing at the time. The graph on page 324 shows the increasing importance of other rural industries such as wheat, sugar cane, beef and dairy products.

Comparisons with other countries

WORLD SHEEP NUMBERS AND WOOL PRODUCTION

(Compiled from USDA Foreign Agricultural Circulars, and the Commodities Division of the Commonwealth Secretariat)

	World sheep numbers (millions)		*Estimated raw wool production ('000 t, greasy)*			*World sheep numbers (millions)*		*Estimated raw wool production ('000 t, greasy)*	
Country	*1975*	*1976*	*1975*	*1976*	*Country*	*1975*	*1976*	*1975*	*1976*
Argentina	39	37	184	191	South Africa	34	35	105	109
Australia	152	149	794	754	Turkey	38	41	48	47
Brazil	27	25	34	34	United Kingdom	20	20	49	51
China (excl. Taiwan Province)	73	n.a.	81	81	Uruguay	16	15	62	63
India	41	n.a.	35	35	U.S.A.	15	13	65	57
Iran	36	38	28	28	U.S.S.R.	145	141	462	463
New Zealand	55	57	294	300	**Total**	1,018	n.a.	2,607	2,582

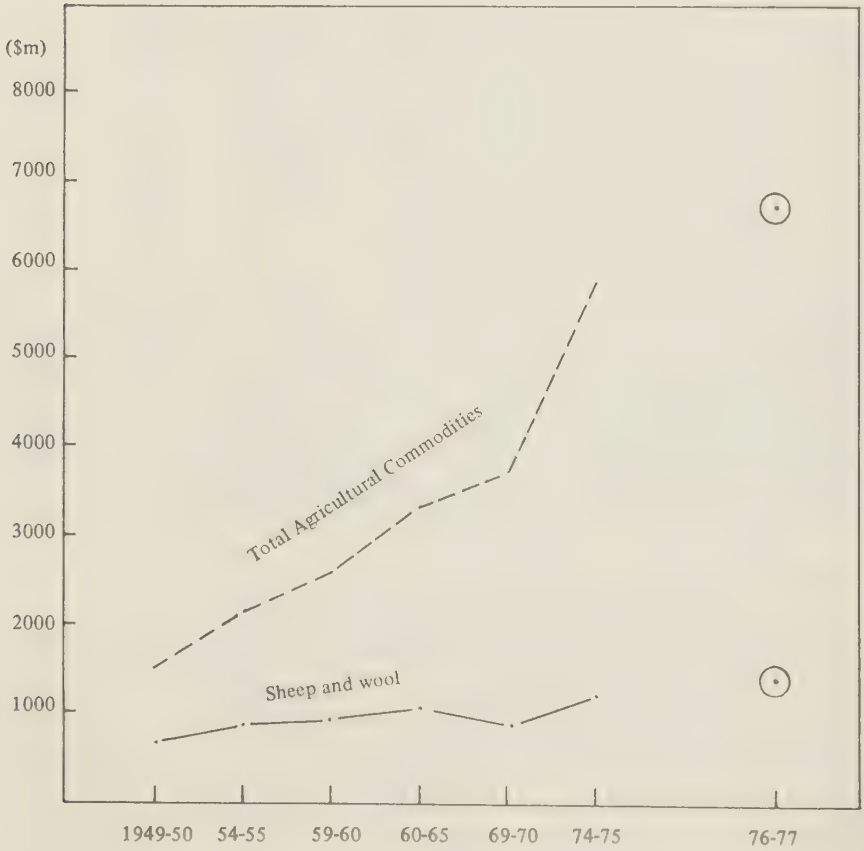
SHEEP AND LAMBS: ANALYSIS OF MOVEMENT IN NUMBERS

(Millions)

Year ended 31 March	*Number at beginning of season*	*Lambs marked*	*Live sheep exports*	*Sheep and lambs slaughtered(a)*	*Estimated deaths on farms(b)*	*Number at end of season*
1968 . .	164.2	50.6	0.4	38.0	9.6	166.9
1969 . .	166.9	51.2	0.4	35.6	7.5	174.6
1970 . .	174.6	56.8	0.5	40.9	10.0	180.1
1971 . .	180.1	54.5	0.8	43.9	12.2	177.8
1972 . .	177.8	51.7	0.8	52.2	13.6	162.9
1973 . .	162.9	39.8	1.1	47.0	14.6	140.0
1974 . .	140.0	43.0	1.1	26.5	10.2	145.2
1975 . .	145.2	46.2	1.4	26.6	11.8	151.7
1976 . .	151.7	44.1	1.8	31.3	14.0	148.6
1977p . .	148.6	38.4	3.0	33.6	15.0	135.4

(*a*) Comprises statistics from abattoirs and other major slaughtering establishments and includes estimates of animals slaughtered on farms and by country butchers; does not include animals condemned or those killed for boiling down. (*b*) Balance item.

GROSS VALUE : SHEEP AND WOOL INDUSTRY*



* Comprises wool and meat

PLATE 33

LAMBING

Year ended 31 March	*Number of breeding ewes at beginning of season*	*Mating intentions at start of season*	*Actual matings*	*Ratio of actual matings to intended matings*	*Lambs marked*	*Ratio of lambs marked to actual matings*	*Ratio of lambs marked to breeding ewes*
	million	million	million	per cent	million	per cent	per cent
1950 .	50.9	45.9	44.0	96	30.4	69	60
1955 .	55.5	48.9	46.9	96	32.8	70	59
1960 .	69.5	63.5	61.2	96	44.2	72	64
1965 .	72.9	67.0	63.9	95	47.6	75	65
1970 .	83.6	76.5	73.1	96	56.8	78	68
1973 .	75.6	66.8	59.1	89	39.8	67	53
1974 .	68.7	62.8	58.7	93	43.0	73	63
1975 .	70.0	65.2	60.9	93	46.2	76	66
1976 .	70.6	65.1	60.5	93	44.1	73	63
1977p .	68.5	63.0	56.5	90	38.4	68	56

For further details on sheep, *see* the bulletins *Livestock Statistics* (7203.0) and *Wool Statistics* (7212.0).

Pigs

In line with the general trend of increased specialisation common to most rural industries, pig farming has developed into a separate industry, being no longer associated with the dairy industry. During the period of wheat quotas and generally low grain prices, pig raising became a profitable outlet for non-quota wheat, but, later, higher grain prices led to some contraction in the pig industry. Pig raising became increasingly associated with inland areas, though most are raised on farms, usually in association with dairy and cereal production. Grains form the basis of most pig rations and this has assisted with the movement to inland grain-growing districts. This is less marked in coastal regions where skim milk, the traditional source of pig feed, is being diverted to other uses.

PIG NUMBERS
('000)

At 31 March—	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust. (incl. N.T., A.C.T.)*
1950 . . .	333	213	392	70	79	36	1,123
1955 . . .	375	264	407	85	107	58	1,297
1960 . . .	399	285	429	109	131	67	1,424
1965 . . .	449	378	406	196	137	92	1,660
1970 . . .	708	495	480	351	250	111	2,398
1973 . . .	1,065	585	542	499	476	85	3,259
1974 . . .	835	424	441	385	344	68	2,505
1975 . . .	729	383	400	349	264	64	2,197
1976 . . .	709	393	409	326	260	70	2,173
1977p . .	760	397	441	317	234	65	2,221

For further details on pigs *see* the bulletin *Livestock Statistics* (7203.0).

Poultry

Once part of the mixed farming sector, the poultry industry is now a highly specialised and distinct industry. The bulk of production is obtained from this commercial source, though many farm households and some private homes in suburban areas keep poultry to supply their domestic needs. Some supplies from this source are also marketed. Because the data from this latter sector is incomplete, total poultry numbers for Australia are not available. There is an increasing tendency for specialisation within the industry into hatcherymen, egg producers and broiler producers. These sectors of the industry each have separate statistics. There are also separate research schemes for the egg and meat chicken industries. Both sectors are good examples of the general movement towards specialised, large scale, capital-intensive production which is common to all rural industries.

POULTRY NUMBERS(*a*)

('000)

At 31 March—	*Hens and pullets for egg production*	*Meat strain chickens (broilers)*	*Other fowls and other chickens*	*Total*	*Ducks*	*Turkeys*
1972 . . .	16,615	21,708	2,212	40,535	282	591
1973 . . .	15,580	23,497	2,661	41,738	310	645
1974 . . .	17,043	24,724	2,384	44,151	265	540
1975 . . .	16,409	22,592	1,758	40,759	164	413
1976 . . .	15,915	25,306	1,566	42,787	254	333
1977 . . .	16,099	27,757	n.a.	n.a.	347	399

(*a*) Data is for numbers of poultry on rural holdings as reported in the annual Agricultural Census.

Hatchings. These details relate to all eggs set and to chicks hatched in commercial hatcheries whether for sale as day-old chicks or for replenishment of own flocks.

EGGS SET AND CHICKENS HATCHED IN COMMERCIAL HATCHERIES

('000)

		Chickens hatched, intended for—		
		Chicken meat		
Year	*Eggs set(a)*	*Meat strains(b)*	*Egg strains(c)*	*Egg production(d)*
1972–73 . . .	217,557	125,822	1,853	16,078
1973–74 . . .	253,881	151,654	1,602	17,492
1974–75 . . .	225,610	140,139	856	15,634
1975–76 . . .	242,351	158,088	559	14,637
1976–77p . . .	259,735	168,736	511	15,962

(*a*) Includes meat and egg strains and eggs which failed to hatch. (*b*) Unsexed. (*c*) Crossbred and other cockerels; unsexed egg strain chickens are evenly distributed to chicken meat chickens and egg production chickens. (*d*) Pullets.

For further details on poultry *see* the bulletins *Livestock Statistics* (7203.0) and *Chicken Hatchings and Poultry Slaughterings.* (7207.0).

Meat production, slaughterings and other disposals

The ABS collects details of slaughterings and meat production from abattoirs, commercial poultry and other slaughtering establishments and includes estimates of animals slaughtered on farms and by country butchers. The data relates only to slaughterings for human consumption and does not include animals condemned or these killed for boiling down.

PRODUCTION OF MEAT BY TYPE(*a*)

('000 tonnes)

	Carcass weight						*Dressed weight(b)*	
Year	*Beef*	*Veal*	*Mutton*	*Lamb*	*Pig meat*	*Total meat*	*Chickens*	*Total all poultry(c)*
1949–50 . . .	584	32	209	155	92	1,072	n.a.	n.a.
1954–55 . . .	690	41	244	150	101	1,227		
1959–60 . . .	719	45	376	206	102	1,449		
1964–65 . . .	968	58	367	227	122	1,743		
1969–70 . . .	975	35	441	314	174	1.940	105	124
1972–73 . . .	1,385	53	435	278	236	2,388	138	161
1973–74 . . .	1,279	43	231	236	211	2,000	171	193
1974–75 . . .	1,494	53	258	269	175	2,249	166	189
1975–76 . . .	1,759	82	326	262	174	2,602	184	204
1976–77p . .	1,843	90	309	244	185	2,699	195	217

(*a*) Excludes offal. (*b*) Dressed weight of whole birds, pieces and giblets. (*c*) Includes other fowls, turkeys, ducks and drakes.

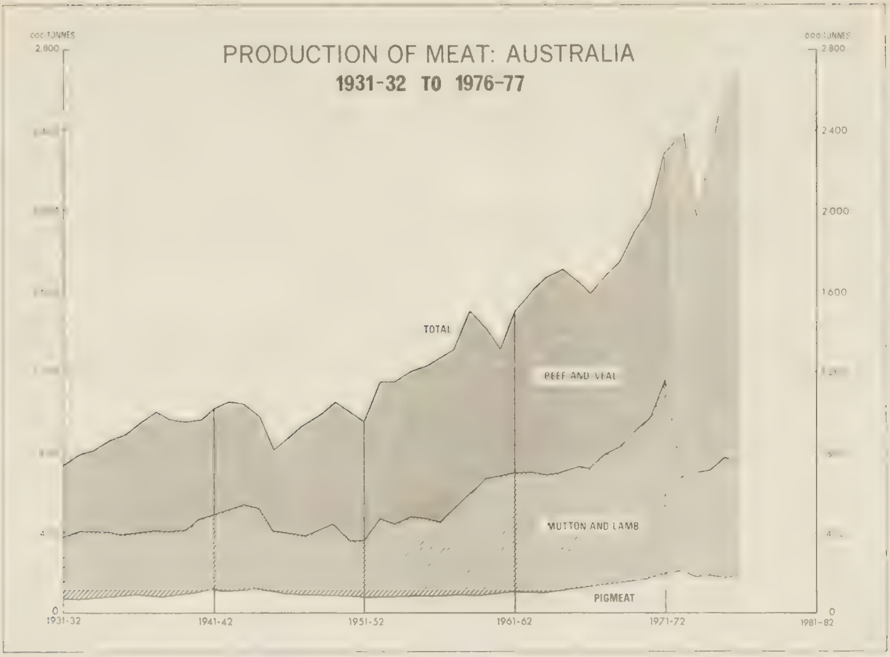


PLATE 34

NUMBERS OF LIVESTOCK AND POULTRY SLAUGHTERED FOR HUMAN CONSUMPTION
(Million head)

Year	*Cattle*	*Calves*	*Sheep*	*Lambs*	*Pigs*	*Chickens(a)*	*Other fowls (b) and turkeys*	*Ducks and drakes*
1949–50	2.5	1.1	10.5	9.8	1.6	n.a.	n.a.	n.a.
1954–55	3.2	1.3	12.3	9.9	1.9			
1959–60	3.4	1.5	19.5	13.6	2.0			
1964–65	4.9	1.9	19.0	14.4	2.5			
1969–70	4.8	1.1	22.3	19.9	3.6	84.6	8.0	1.0
1972–73	6.8	1.4	23.2	17.9	4.7	113.2	10.1	1.3
1973–74	6.1	1.2	11.3	13.9	4.2	139.8	10.1	1.2
1974–75	6.9	1.5	12.7	16.0	3.4	134.2	10.5	1.3
1975–76	8.5	2.1	16.8	16.1	3.3	144.2	9.2	1.2
1976–77p	9.3	2.4	16.5	15.1	3.5	154.5	9.8	1.2

(*a*) Comprises broilers, fryers and roasters. (*b*) Comprises hens, roosters, etc.

Mutton and lamb

Wool production and meat production are closely related and movements in the prices of wool or sheepmeat can cause a shift from one to the other as relative profitability changes. The decline in wool prices after 1956–57, and after 1963–64 led to increases in prime lamb production as diversification occurred in wool-growing areas. These record slaughterings were followed by improved wool prices in 1972–73 which, together with a substantial fall in the total sheep flock, resulted in a sharp decline in sheepmeat production and sheep and lamb prices rose steeply. Exports of mutton peaked in the early seventies and there has been a noticeable increase in exports of boneless meats Live sheep exports to the Middle East have increased from 800,000 in 1971–72 to over 3 million in 1976–77. Much of the expanded lamb production has been absorbed in the domestic market.

Beef and veal

The expansion in production of beef and veal has shown a steady annual increase in the last 20 years, although there have been wide fluctuations along the upward trend. The export market for beef increased dramatically after 1969–70, when exports exceeded Australian consumption, and a growing proportion of beef and veal output has been shipped to export markets.

Production is running at record levels, although 1976–77 cattle numbers decreased by about 6 per cent over the 1975–76 level. However, the depressed state of the beef industry in recent years is revealed by the steep fall in the indexes of average unit gross value (*see* page 293) from a peak of 135.5 in 1973–74 to 56.6 in 1974–75 and 64.5 in 1975–76. Statistics derived from the Agricultural Finance Survey (*see* page 289) also indicate the depressed state of the meat cattle industry by a negative cash operating surplus for the years 1974–75 and 1975–76.

Pigmeat

Over half the pigmeat produced is sold as pork, with the remainder as bacon, ham and smallgoods. A relatively small amount of pigmeat is exported, with Japan taking significant amounts in some years.

Poultry

The poultry meat industry has developed rapidly since 1970 and both output and consumption have risen steeply. Genetic and technical improvements and the organisation of the industry into large-scale enterprises have raised efficiency and reduced production costs relative to other meats.

EXPORTS OF FRESH, CHILLED OR FROZEN MEAT

	Beef	*Veal*	*Mutton*	*Lamb*	*Pork*	*Poultry*
			QUANTITY(*a*) ('000 tonnes)			
1949–50 . . .	80.8	1.9	31.6	56.0	6.8	n.a.
1954–55 . . .	123.3	2.1	15.3	43.1	3.0	n.a.
1959–60 . . .	188.1	3.1	32.6	26.9	0.4	0.1
1964–65 . . .	445.5	15.7	122.0	30.2	0.4	0.4
1969–70 . .	477.1	5.4	136.5	41.4	5.2	1.7
1972–73 . . .	826.5	26.6	156.8	31.7	20.1	4.0
1973–74 . . .	704.7	25.2	103.6	22.5	8.6	4.3
1974–75 . . .	601.2	10.2	120.7	24.6	1.1	5.1
1975–76 . . .	783.7	16.8	201.5	28.9	5.2	5.0
1976–77p . . .	919.7	17.1	241.5	59.8	3.1	4.7
			VALUE f.o.b. ($ million)			
1949–50 . . .	13.0	0.4	3.4	11.5	2.1	5.6
1954–55 . . .	42.8	1.0	3.3	20.4	1.6	1.1
1959–60 . . .	109.1	1.8	9.4	8.8	0.3	0.1
1964–65 . . .	192.4	8.0	29.5	10.8	0.3	0.3
1969–70 . . .	286.9	5.2	60.9	20.5	4.1	1.1
1972–73 . . .	623.0	29.2	100.6	17.9	17.1	2.5
1973–74 . . .	610.6	25.1	62.5	16.7	8.1	3.3
1974–75 . . .	315.9	6.4	48.9	15.5	1.6	4.3
1975–76 . . .	475.3	11.5	81.2	20.3	7.6	4.3
1976–77p . . .	602.8	12.9	121.4	46.3	4.6	4.5

(*a*) Since 1964–65 quantity data on beef, veal, mutton and lamb exports is shown in carcass weight equivalents; previous years are in actual weight shipped.

Exports of live animals

For details of the regulation governing the export (and import) of live animals *see* Year Book No. 61 page 848.

EXPORTS OF LIVE ANIMALS

Year	Livestock numbers ('000)		Poultry numbers ('000)		Value f.o.b. ($'000)	
	Sheep and lambs	Total(a)	Day old chicks	Total	Livestock	Poultry
1949–50 . . .	97	98	74	79	604	21
1954–55 . . .	97	105	57	67	1,409	19
1959–60 . . .	226	240	426	443	2,562	127
1964–65 . . .	286	296	720	736	3,246	184
1969–70 . . .	563	566	397	419	4,585	125
1972–73 . . .	1,135	1,146	360	380	15,343	170
1973–74 . . .	1,061	1,086	347	436	26,528	250
1974–75 . . .	1,449	1,461	204	253	22,931	166
1975–76 . . .	1,845	1,869	256	284	23,231	242
1976–77p . . .	3,386	3,403	279	290	52,448	165

(*a*) Also includes cattle, calves, buffaloes and pigs.

PRODUCTION AND EXPORT OF BACON, HAM AND CANNED MEAT

Year	Production			Exports			
	Bacon and ham(a)		Canned meat(b)	Bacon and ham(c)		Canned meat(d)	
	Bone-in	Bone-out		Quantity	Value	Quantity	Value
	tonnes		tonnes	tonnes	$'000 f.o.b.	tonnes	$'000 f.o.b.
1949–50 . .	41,229		57,090	n.a.	n.a.	n.a.	n.a.
1954–55 . .	38,982		73,524				
1959–60 . .	37,506		69,304				
1964–65 . .	44,062		50,709				
1969–70 . .	54,330		46,737	259	416	17,045	10,209
1972–73 . .	24,740	34,492	50,476	401	575	22,749	16,800
1973–74 . .	23,143	37,802	55,760	492	813	22,517	25,289
1974–75 . .	17,638	36,745	42,422	570	1,047	15,224	18,221
1975–76 . .	15,986	38,531	44,725	385	761	20,604	24,541
1976–77p . .	15,820	41,534	52,255	489	810	30,291	36,712

(*a*) Production of bacon and ham 'on the bone' is shown in terms of 'bone-in' weight, while production of boneless bacon and ham is shown in terms of 'bone-out' weight. Production of canned bacon and ham, which is reported in terms of 'stated net weight of packs', is included in the 'bone-out' category. Production prior to 1972–73 is shown in 'bone-in' terms. (*b*) Canned weight. Includes bacon, ham and meat and vegetables, but excludes rabbit, poultry and baby foods. (*c*) Cured carcass weight of smoked or cooked bacon and ham. Includes 'stated net weight of packs' of canned bacon and ham. (*d*) Canned weight; excludes canned bacon and ham.

GROSS VALUE OF LIVESTOCK SLAUGHTERINGS AND OTHER DISPOSALS(*a*)
($ million)

Year	Cattle and calves	Sheep and lambs	Pigs	Poultry	Total
1949–50 . . .	113.0	60.3	28.6	15.5	217.4
1954–55 . . .	235.1	(*b*)151.3	42.5	21.7	450.6
1959–60 . . .	375.4	147.3	60.2	29.2	612.1
1964–65 . . .	482.8	175.0	75.4	42.9	776.1
1969–70 . . .	627.5	214.4	96.1	69.8	1,007.7
1971–72 . . .	717.6	215.7	111.2	89.8	1,134.4
1972–73 . . .	1,021.7	306.1	123.7	90.6	1,542.2
1973–74 . . .	1,069.1	321.4	173.0	132.5	1,696.0
1974–75 . . .	523.4	178.3	177.7	139.8	1,019.2
1975–76 . . .	709.2	208.3	184.2	152.9	1,254.6
1976–77p . . .	961.0	300.0	189.0	165.0	1,616.0

(*a*) Includes adjustment for net exports (overseas and interstate) of live animals. (*b*) Includes value of wool on skins, fellmongered and exported.

Consumption

Owing to diverse cutting practices by butchers and because of the difficulty of clearly defining the term 'retail weight of meat', it is considered impractical to derive a satisfactory factor for the purpose of expressing estimated meat consumption in terms of retail weight. Depending on cutting practices employed and whether or not bones, etc. sold to customers are included in retail weight of meat, the following retail weights as a proportion of carcass weight are generally acceptable: beef, 60 per cent to 75 per cent; mutton and lamb, 80 per cent to 95 per cent; pork 90 per cent to 95 per cent.

APPARENT CONSUMPTION OF MEAT AND MEAT PRODUCTS AS HUMAN FOOD

Year	*Beef and veal*	*Mutton*	*Lamb*	*Pigmeat(a)*	*Bacon and ham*	*Canned meat*	*Poultry meat*
			TOTAL ('000 tonnes)				
1949–50 . .	454	167	100	26	35	13	n.a.
1954–55 . .	480	215	107	42	33	10	n.a.
1959–60 . .	450	293	180	48	32	19	n.a.
1964–65 . .	510	236	201	61	39	23	n.a.
1969–70 . .	481	211	267	94	47	29	131
1972–73 . .	524	209	244	103	72	34	174
1973–74 . .	552	119	211	90	73	32	184
1974–75 . .	881	123	243	70	67	30	187
1975–76 . .	969	105	232	70	65	29	201
1976–77p . .	926	64	186	75	n.a.	n.a.	213
			PER HEAD PER YEAR (kg)				
1949-50 . .	56.4	20.7	12.4	3.3	4.4	1.6	n.a.
1954–55 . .	52.8	23.7	11.8	4.6	3.6	1.1	n.a.
1959–60 . .	44.2	28.9	17.6	4.7	3.2	1.9	n.a.
1964–65 . .	45.5	21.0	17.8	5.4	3.4	2.1	n.a.
1969–70 . .	38.8	17.0	21.5	7.6	3.8	2.3	10.5
1972–73 . .	40.1	15.9	18.7	7.9	5.5	2.6	13.3
1973–74 . .	41.6	9.0	15.9	6.8	5.5	2.4	13.9
1974–75 . .	65.4	9.1	18.0	5.2	5.0	2.2	13.9
1975–76 . .	71.2	7.7	17.0	5.1	4.8	2.1	14.8
1976–77p . .	66.2	4.6	13.3	5.4	n.a.	n.a.	15.6

(*a*) Comprises pork and includes smallgoods and estimates for trimmings from baconer carcasses.

NOTE: Beef, veal, mutton, lamb and pigmeat are expressed in terms of carcass weight, bacon and ham in cured carcass weight, canned meat in canned weight and poultry meat in dressed weight.

For further details on meat production and slaughtering *see* the following bulletins: *Meat Statistics*, monthly (7204.0), quarterly (7205.0) and annual (7206.0), *Chicken Hatchings and Poultry Slaughterings* (7207.0), *Value of Agricultural Commodities Produced* (7503.0) and *Apparent Consumption of Foodstuffs and Nutrients* (4306.0).

The Australian Meat and Livestock Corporation

Legislation was enacted to establish the Australian Meat and Livestock Corporation from 1 October 1977. This Corporation, which regulates and promotes meat and livestock exports, replaced the Australian Meat Board. (*See* Year Book No. 61, page 851 for particulars of that Board's functions.)

Two groups—The Meat and Livestock Exporters and Abattoir Operators Consultative Group and the Livestock Producer Consultative Group—are responsible for nominating corporation members and will:

- advise the Corporation on important matters such as trade and market matters; and
- disseminate information on Corporation decisions and policies to people engaged in the meat and livestock industries.

In addition to the Consultative Groups, an Australian Meat Industry Conference has been established. It is representative of all parties with an interest in matters for which the Corporation is responsible and includes representatives of producers, exporters, meatworks, packers, processors, livestock agents, unions and consumers. The Conference, meeting annually, provides a forum in which organisations representing the diverse interests of the meat and livestock industries debate issues of concern to them.

The Corporation's main functions are to encourage, assist, promote and control the export of meat and livestock from Australia, and to promote the sale of meat in Australia. It has the authority, also, to perform a range of other functions aimed at improving the production of meat and livestock and for the general benefit of the meat and livestock industries.

Finance

As with the Meat Board, one component of the Livestock Slaughter Levy will be used to finance the Corporation's activities. The other components will continue for research and disease eradication in cattle.

The Beef Industry (Incentive Payments) Scheme

This Act was promulgated on 31 October 1977. Its purpose is to enable payments to be made to beef producers, provided they meet certain conditions related to cattle husbandry procedures, including carrying out recognised disease control. The legislation provides for producers owning fifty or more marked cattle kept for beef production to make claims for recognised procedures taken between 23 September 1977 and 22 September 1978. Recognised disease control processes include:

- dipping and similar treatment for external parasites,
- drenching for internal parasites,
- brucellosis and tuberculosis eradication, and
- vaccinations.

The subsidy is limited to $2,000 per producer, with companies, partnerships and trusts being treated as individual producers.

For further details on topics such as the Livestock Slaughter Levy, various meat research schemes and international agreements, *see* Year Book No. 61, pages 851–853. For additional details on the Australian Meat and Livestock Corporation, *see* the latest issue of *Meat Statistics* (annual) (7206.0).

Wool

With about one-seventh of the world's woolled sheep, Australia produces about one-third of the world's wool and more than half the world's fine-quality Merino wool. More than 90 per cent of the production is exported, mainly as greasy wool, although substantial amounts of scoured and carbonised wool, wool on sheep skins and small quantities of semi-manufactured wool are also shipped.

Wool production

Wool as shorn from the sheep contains an appreciable amount of grease, dirt and other extraneous matter, and is termed 'greasy wool'. The quantity of grease and other matter in a fleece differs not only between countries, but between districts in the same country. It fluctuates with the vagaries of the season, and with the breed and the condition of the sheep. To allow for this factor, the weight of greasy wool is sometimes given on a 'clean' basis, i.e. minus the estimated amount of impurities. The net wool fibre content of greasy wool, expressed as a percentage, is termed 'clean yield'.

From 1946–47 to 1952–53 the Australian Wool Realisation Commission, and from 1953–54 the Wool Statistical Service, has assessed annually the clean yield of the Australian wool clip. During the period of assessment the clean yield showed a continuous rise up to 1951–52, when it reached 57.5 per cent. It was 59.21 per cent in 1976–77.

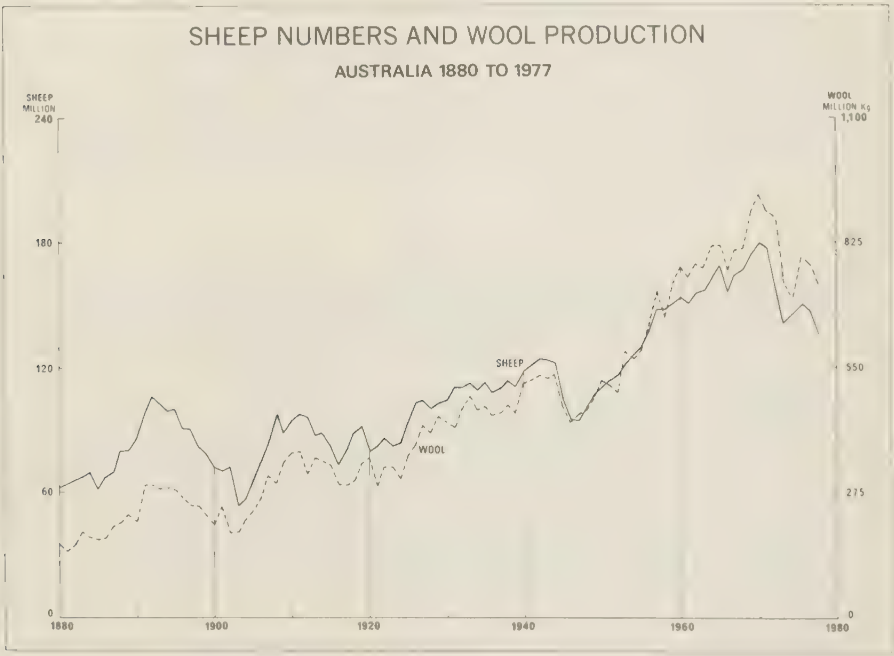
Wool scoured, washed and carbonised in Australia before export, however, has a somewhat lower clean yield than the whole clip, because the grade of greasy wool treated locally for export as scoured, washed or carbonised contains quantities of dirty and low-grade wool. The quantity of scoured and carbonised wool exported during 1976–77 was about 9.4 per cent of total raw wool exports in terms of greasy. For the clean yield of Australian scoured wools exported a standard factor of 93 per cent has been adopted.

The following table shows details of total wool (i.e. shorn, dead, fellmongered, and exported on skins) as well as the numbers of animals shorn, the average fleece weight and the gross value of the wool. A graph showing the production of wool in relation to the number of sheep appears on plate 35, page 332.

SHEARING, WOOL PRODUCTION AND VALUE

Year	Sheep and lambs shorn	Average fleece weight	Wool production Shorn wool	Other wool(a)	Total wool Quantity	Gross value (b)
	million	kg	'000 tonnes	'000 tonnes	'000 tonnes	$m
1949–50 . .	117.6	3.96	466.3	51.7	518.0	576
1954–55 . .	137.0	3.89	532.5	49.3	581.8	691
1959–60 . .	169.5	4.09	693.7	68.3	762.1	780
1964–65 . .	182.3	4.06	739.1	70.1	809.2	841
1969–70 . .	192.7	4.34	837.4	88.4	925.8	735
1972–73 . .	155.4	4.14	643.6	91.6	735.2	1,243
1973–74 . .	150.6	4.28	644.3	56.6	700.9	1,229
1974–75 . .	161.9	4.48	725.3	68.2	793.5	953
1975–76 . .	159.6	4.27	681.4	72.8	754.3	1,000
1976–77p . .	145.7	4.32	629.3	79.7	709.0	1,135

(a) Comprises dead and fellmongered wool, and wool exported on skins. (b) Gross value is based, for shorn wool, upon the average price realised for greasy wool sold at auction and, for skin wools, on prices recorded by fellmongers and skin exporters.


SHEEP NUMBERS AND WOOL PRODUCTION

AUSTRALIA 1880 TO 1977

PLATE 35

Wool receivals

The ABS collects details of the amount of taxable wool received by brokers and dealers from wool producers; this excludes wool received by brokers on which tax has already been paid by other dealers (private buyers) or brokers.

TAXABLE WOOL RECEIVALS

Year ended 30 June	Receivals			Dealers as per cent of total receivals	Shorn wool production(a)
	Brokers	*Dealers*	*Brokers and dealers*		
	per cent	'000 tonnes	per cent	per cent	'000 tonnes
1972	674.8	99.2	774.0	12.8	777.0
1973	513.7	129.8	643.6	20.2	643.6
1974	507.3	117.1	624.4	18.8	644.3
1975	593.9	135.3	729.2	18.5	725.3
1976	525.2	161.6	686.9	23.5	681.4
1977p	476.5	150.3	626.9	24.0	629.3

(*a*) Obtained from the annual Agricultural Census.

The large pastoral houses have been responsible for handling the bulk of Australian wool since the early years of the industry and they have done this through the auction system. Following the Second World War, private treaty trading has become a significant alternative method of disposal. In the 'seventies there has been a big increase in private trading reaching nearly a quarter of the 1976–77 clip. The proportions vary between States, with Western Australian private buyers in 1972–73 taking 37 per cent of the total receivals in that State.

Prices

Fluctuations in Australian wool prices have a marked effect on rural and national income. In 1945–46 the gross value of wool was $117.2 million, representing 17.4 per cent of the gross value of all agricultural commodities produced, while in 1950–51, when prices reached a peak during the Korean War, wool was valued at $1303.8 million or 55.6 per cent of total agricultural industries.

Year	*Value of wool production as a per cent of total agriculture*	*Value of wool exports as a per cent of total Australian exports*	*Year*	*Value of wool production as a per cent of total agriculture*	*Value of wool exports as a per cent of total Australian exports*
1949–50 . .	37.0	51.4	1972–73 . .	25.1	19.0
1954–55 . .	31.3	46.1	1973–74 . .	19.2	17.3
1959–60 . .	29.5	42.0	1974–75 . .	16.2	9.0
1964–65 . .	24.6	31.2	1975–76 . .	16.2	10.1
1969–70 . .	19.7	19.2	1976–77p . .	16.9	n.a.

Stock

Stocks shown below of raw and semi-processed wool were held by wool processors, scourers, fellmongers, brokers, dealers and the Australian Wool Corporation. They exclude wool on skins since this wool is not recorded as production until fellmongered in Australia or exported on skins.

WOOL STOCKS
('000 tonnes)

At 30 June	*Stocks of—*					
	Raw wool(a)		*Semi-processed wool*		*Total wool*	
	Greasy	*Clean*	*Greasy*	*Clean*	*Greasy*	*Clean*
1950	65.7	35.3	8.6	4.8	74.3	40.1
1955	31.9	17.2	7.4	4.3	39.3	21.5
1960	111.1	62.1	11.7	6.8	122.8	68.9
1965	141.0	79.2	10.3	5.9	151.3	85.1
1970	171.9	95.7	13.1	7.5	185.1	103.2
1972	224.6	126.4	11.4	6.5	236.0	132.9
1973	114.5	63.7	11.3	6.4	125.8	70.1
1974	181.9	104.4	10.5	5.9	192.4	110.3
1975	450.3	268.8	7.5	4.3	457.8	273.1
1976	388.8	232.8	9.3	5.5	398.1	238.3

(*a*) Includes from about 1971 or 1972 varying amounts of stock held by the Australian Wool Corporation: 1974, 5,600 tonnes greasy; 1975, 34,300 tonnes greasy; 1976, 35,600 tonnes greasy.

Wool consumption

Two series of calculations on Australian wool consumption are shown below. The first measures consumption in terms of scoured wool used by mills (on the woollen and worsted systems) and for the manufacture of felt (including hats); this series has been included for comparison purposes with other countries. The second is calculated from the usage of woollen and worsted yarn (including wool and other fibre mixtures) and scoured wool for felt manufacture (including hats). This second series is considered to be a more satisfactory measure of Australian wool consumption, principally because allowance is made for significant quantities of wool tops exported. However, both series relate to consumption of wool by the wool textile industry, and should not be used as measures of consumption in terms of retail purposes. It has not been possible to estimate wool consumption at the retail level because of the impracticability of obtaining reliable data concerning the wool content of the multiplicity of woollen and worsted piece-goods and finished articles exported and imported and held as stock by manufacturers, wholesalers and retailers.

CONSUMPTION OF RAW AND PROCESSED WOOL
('000 tonnes)

	Consumption of raw wool		*Consumption of processed wool*					
			Worsted yarn used(a)		*Woollen yarn used(b)*		*Total*	
Year	*Greasy*	*Clean*	*Greasy*	*Clean*	*Greasy*	*Clean*	*Greasy*	*Clean*
1949–50	48.4	26.5	24.4	13.5	17.1	9.8	45.7	25.3
1954–55	41.0	23.8	18.6	10.8	12.1	7.4	34.1	19.8
1959–60	58.3	35.2	20.1	12.0	16.5	10.3	38.9	23.4
1964–65	56.4	33.2	21.4	12.3	18.4	11.1	41.1	24.0
1969–70	58.2	34.0	17.8	11.0	17.2	10.4	36.1	21.9
1971–72	55.3	31.5	21.5	12.1	18.6	11.0	41.2	23.7
1972–73	56.2	32.2	18.9	10.7	17.5	10.4	37.5	21.6
1973–74	45.6	26.0	15.0	8.4	17.1	10.0	33.3	18.9
1974–75	31.2	17.8	10.4	6.3	14.6	8.6	26.0	15.4
1975–76	52.1	29.9	15.3	8.6	17.2	10.2	33.6	19.3

(*a*) Wool content of yarns containing a mixture of wool and other fibres. (*b*) Comprises pure and mixed woollen yarn.

Exports of wool

In 1975–76, of the 583,500 tonnes of greasy and slipe wool exported, 198 thousand (34 per cent) went to Japan. Other large shipments were 11 per cent to France, 10 per cent to the USSR and 9 per cent to Italy.

EXPORTS OF WOOL

	Selected exports ('000 tonnes: greasy basis)			*Total exports(a)*	
Year	*Greasy and slipe*	*Scoured and carbonised*	*Exported on skins*	*Greasy basis*	*Value f.o.b.*
				'000 tonnes	$ m
1949–50	479.8	139.5	28.2	651.3	626
1954–55	437.1	70.2	29.2	541.3	706
1959–60	587.3	84.5	50.7	741.3	772
1964–65	606.4	63.8	57.9	743.8	806
1969–70	713.0	65.6	78.6	872.0	761
1972–73	666.5	55.0	83.8	822.7	1,130
1973–74	488.1	41.4	52.6	593.3	1,157
1974–75	456.9	58.0	66.2	590.6	753
1975–76	583.5	68.0	72.8	735.6	961
1976–77p	675.6	78.2	79.7	(*b*)833.5	1,427

(*a*) Includes semi-processed wool.

Wool marketing

There is no Government control over the marketing of wool, but the Australian Wool Corporation, which is a statutory body, performs functions aimed at assisting the orderly and efficient disposal of wool as well as encouraging demand for wool. The Wool Corporation came into operation on 1 January 1973 through the amalgamation of the former Australian Wool Commission and Australian Wool Board.

The functions of the Corporation relate to wool marketing, wool use promotion, wool testing, wool research and the management of wool stores. In addition, the Corporation is required to enquire into methods of marketing wool and to report on matters relating to marketing. A comprehensive report on wool marketing was released on 17 January 1974 in which the Corporation recommended the adoption of procedures aimed at stabilising wool prices and regulating availability. The central recommendation of the report was that the Corporation acquire ownership of all wool for export. The proposal was submitted by the Corporation to the Commonwealth Government and is under study.

For the 1974–75, 1975–76 and 1976–77 seasons, the Corporation was authorised by the Government to operate a minimum reserve (floor) price at wool auctions. Credit facilities for $350 million were provided by the Government to the Corporation for this purpose. These are additional to credit available to the Corporation from commercial sources. Woolgrowers are required to pay a levy of 5 per cent on sales proceeds of shorn wool for a reserve against possible losses from the scheme.

Funds for other activities of the Corporation (notably wool promotion) are provided jointly by woolgrowers, through a levy on shorn wool proceeds (*see* below), and the Commonwealth Government. The Corporation is embarking on a limited offer to purchase scheme (LOPS) which is a trial of its commercial ability to purchase, handle and sell wool. Advantages of the scheme for growers include an immediate reduction in standard handling charges, payment in full no later than 15 working days after receipt of the last bale of a clip or portion of a clip purchased, and a purchase price set on current market price. The scheme is to concentrate on efficiency in wool-store operations and the Corporation will not limit its total purchase for the scheme to particular clip sizes or lot sizes. If it wishes to receive part of a clip, the grower retains the right to require purchase of the whole clip.

A key part of the planning is the flexipack—a giant poly bag which can hold up to 450 kg of greasy wool in the shape of a giant 8 ft sausage. The flexipack is loaded in the woolshed, doing away with the need for either woolpress or conventional pack. It is then loaded onto a special truck by crane, and vacuum-shrunk by sucking the air out to bring it down to a more manageable size. Being an impervious plastic it needs no special storage and can be left in the open.

Objective measurement of wool. Sealed tender sales have been developed since the early 1970s and are based on an inspection sample which had been tested and certificated by the Australian Wool Testing Authority. These objective measurement certificates are also used in auction sales, replacing subjective testing by wool buyers.

Year Book No. 61 contains a description of some of the regulations, statutory bodies, levies, etc., operating in the wool industry. Topics covered include: the Australian Wool Industry Conference, the Randall Committee, Wool Levy, the Commonwealth Government's contribution to wool research and promotion, and the development of objective measurement of wool.

For further details on sheep shorn, wool production and overseas trade *see* the following bulletins: *Livestock Statistics* (7203.0), *Sheep numbers, shearing and wool production* (7211.0), *Wool production and shearing* (7210.0), *Wool Statistics* (7212.0), *Brokers and Dealers Receivals of Taxable Wool* (monthly) (7213.0), *Overseas Trade* (5409.0, 5410.0), *Production Bulletin No.* 4 (8360.0) and *Value of Agricultural Commodities Production* (7503.0).

Dairying

Dairying in Australia occurs mainly in the south-eastern region of the mainland, and in Tasmania, where rainfall is ample and fairly reliable. It is predominantly coastal, but has also developed inland in small areas close to population centres and, on a larger scale, in some irrigated regions in the Riverina of New South Wales and northern Victoria.

Australian dairy cattle have shown steady improvement in quality, as demonstrated by milk yield, over the years. This is attributable to improved breeding associated with herd recording, better feeding resulting from the use of improved pastures, and better farming methods arising from the development of modern farm machinery and the application of the results of research.

A significant development in recent years has been the shift away from on-farm separation and delivery of cream to factories to a widespread system of refrigerated bulk milk delivery. The Commonwealth Government encouraged this transformation by providing interest-free loans under the Australian Dairy Adjustment Program.

The manufacturing and processing sections of the industry are well advanced technologically and certain techniques and equipment developed in Australia are now being adopted overseas. State Agricultural Departments give advice on approved methods of production and inspect animals, buildings and marketable produce, to ensure that the latest advances in technology are passed on to the farmer and that hygiene standards are maintained at a high level.

MILK CATTLE NUMBERS
('000)

31 March	Bulls used or intended for service	Cows and heifers used or intended for production of milk or cream for sale			House cows and heifers(*a*)
		Cows (in milk and dry)	Heifers		
			1 year and over	Under 1 year	
1965	(*b*)95	3,012	843	690	202
1970	(*b*)69	2,673	703	631	156
1973	81	2,532	655	601	124
1974	77	2,371	633	554	121
1975	78	2,355	634	537	122
1976	73	2,345	595	467	122
1977p	67	2,185	543	388	105

(*a*) One year and over, kept for rural holdings' own milk supply. (*b*) Excluded bull calves under 1 year which were intended for service in milk herds.

The late sixties and early seventies saw the elimination of many of the smaller, less productive herds, and the industry has increasingly concentrated in the environmentally more favoured regions. Typically, labour on dairy farms is provided by the owner operator and his family, but wide variations exist between regions and sectors.

In the past, fluctuations in milk production have been absorbed by the manufacturing sector, especially for butter production which, in 1949–50, accounted for 64 per cent of total milk output. Domestic consumption of butter has fallen from 11.4 kg per head per year in 1949–50 to 6.9 kg in 1975–76 and butter production now accounts for 43 per cent of total milk output. Cheese has now become the major growth product in dairying, with domestic consumption rising steadily from 2.9 kg per head per year in 1949–50 to 5.9 kg per head per year in 1975–76.

PRODUCTION, UTILISATION AND GROSS VALUE OF WHOLE MILK

	Whole milk used for—				Total whole milk
	Factory butter(*a*)	Non-processed cheese(*a*)	Processed milk products	Human consumption(*a*)	
	QUANTITY (million litres)				
1949–50 . . .	3,657	440	407	1,126	5,630
1954–55 . . .	4,031	448	293	1,256	6,027
1959–60 . . .	4,147	459	376	1,413	6,395
1964–65 . . .	4,268	617	441	1,588	6,914
1969–70 . . .	4,642	730	471	1,680	7,523
1972–73 . . .	3,817	871	542	1,721	6,952
1973–74 . . .	3,624	889	535	1,707	6,756
1974–75 . . .	3,345	936	627	1,589	6,497
1975–76 . . .	3,026	1,057	631	1,534	6,248
1976–77p . . .	2,483	955	734	1,568	5,740
	GROSS VALUE ($ million)				
1949–50 . . .	78.1	10.9	11.8	49.0	(*b*)166.7
1954–55 . . .	135.6	18.4	15.1	100.8	(*b*)302.0
1959–60 . . .	169.8	22.7	20.7	123.5	336.7
1964–65 . . .	182.5	32.6	23.8	145.3	384.2
1969–70 . . .	196.3	32.8	23.5	161.3	413.9
1972–73 . . .	193.1	47.2	34.1	184.4	(*c*) 464.1
1973–74 . . .	184.5	47.0	32.4	196.6	(*c*) 467.6
1974–75 . . .	191.1	61.6	39.0	217.7	(*c*) 518.5
1975–76 . . .	151.6	57.1	34.1	238.2	(*c*) 490.3
1976–77p . . .	n.a.	n.a.	n.a.	n.a.	548.0

(*a*) Prior to 1963–64 milk used to produce farm butter and cheese was included with factory production; subsequently milk used in farm production is included with human consumption and other purposes. (*b*) Included a subsidy paid on whole milk for all processed milk products. (*c*) Includes data not available for publication in the components.

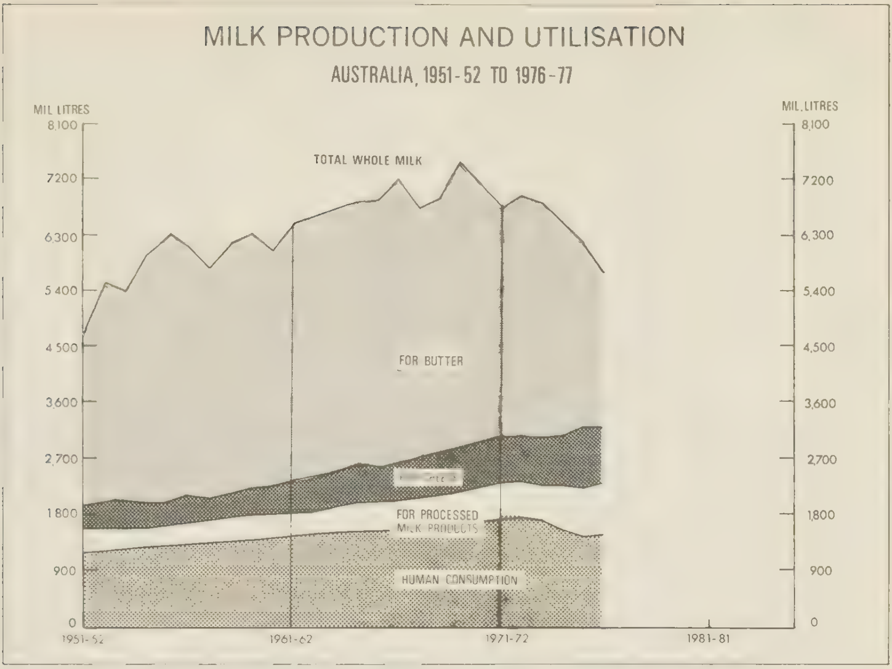


PLATE 36

Exports

The United Kingdom has, in the past, been Australia's main butter market, but this market was effectively closed with Britain's joining the European Economic Community. There has been some diversification in the form of butter oil exports to South East Asia, in line with the development of milk recombining plants there. Japan has replaced the United Kingdom as the major outlet for Australian cheese.

PRODUCTION AND TRADE OF BUTTER AND CHEESE

	Butter			*Cheese*			
		Exports(a)		*Factory pro-*	*Exports(b)*		
Year	*Factory production(c)*	*Quantity*	*Value f.o.b.*	*duction(d)*	*Quantity*	*Value f.o.b.*	*Imports*
	'000 tonnes	'000 tonnes	$m	'000 tonnes	'000 tonnes	$m	'000 tonnes
1949–50 . .	176.4	80.5	49.3	45.5	23.3	8.3	. .
1954–55 . .	194.1	63.5	49.2	45.9	22.5	10.1	0.8
1959–60 . .	200.7	78.2	57.3	45.7	19.2	10.0	1.1
1964–65 . .	206.3	91.7	62.2	62.6	27.6	14.2	3.4
1969–70 . .	223.0	81.6	43.8	76.3	40.8	19.6	6.7
1972–73 . .	184.9	57.8	48.0	93.4	29.6	21.7	7.5
1973–74 . .	175.5	37.9	27.2	95.8	38.0	28.9	7.4
1974–75 . .	161.3	18.9	19.5	98.8	34.2	34.6	8.0
1975–76 . .	147.6	52.5	42.2	112.6	31.5	35.2	9.7
1976–77p . .	118.1	22.6	26.0	103.4	52.5	56.2	n.a.

(*a*) Excludes ghee and butter concentrates. (*b*) Includes processed cheese exports. (*c*) Prior to 1964–65 included estimates of butter produced on farms. (*d*) Prior to 1964–65 included estimates of cheese produced on farm. Factory production is shown only for non-processed cheese.

Apparent consumption

CONSUMPTION OF MILK, BUTTER, CHEESE AND MARGARINE

Year	Apparent consumption Total			Apparent consumption Per head per year			Margarine	
	Fluid whole milk	Butter	Non-processed cheese	Fluid whole milk	Butter	Non-processed cheese	Table	Other
	mil. litres	'000 tonnes	'000 tonnes	litres	kg	kg	kg	kg
1949–50	1,100	86	18	144.6	11.4	2.9	0.5	2.9
1954–55	1,173	125	24	132.0	13.7	2.6	1.0	2.4
1959–60	1,323	121	29	133.6	11.9	2.9	1.6	2.6
1964–65	1,487	115	38	136.0	10.3	3.4	2.0	2.8
1969–70	1,596	116	46	131.8	9.3	3.7	1.3	3.8
1971–72	1,565	112	54	121.4	8.7	4.2	1.4	4.0
1972–73	1,622	109	61	124.0	8.3	4.6	1.6	4.1
1973–74	1,592	104	63	120.0	7.9	5.3	1.8	4.1
1974–75	1,466	99	70	108.9	7.3	5.2	2.2	3.9
1975–76	1,479	94	80	108.7	6.9	5.9	3.1	4.0

The problems facing the industry can be reduced to contracting milk production, a dwindling domestic market, a continuation of exports at a fairly constant percentage of production to uncertain depressed markets characterised by price instability. Cheese and whole milk powder have relatively better market returns and prospects.

Wholesale prices of butter and cheese in Australia

These prices, in the past, were set by the Australian Dairy Industry Council (ADIC) in association with manufacturers. Since the inception of the Prices Justification Tribunal, the ADIC on behalf of the manufacturers, makes applications for increases in the domestic bulk wholesale (ex-factory) prices.

For further details on the dairying industry *see* the bulletin *Dairying and Dairy Products* (7209.0), *Milk Statistics*, monthly (7208.0), *Production Bulletin No. 3, Food, Drink and Tobacco* (8359.0), and *Production of Non-Processed Cheese* (8307.0). Year Book No. 61, pages 854–857 contains a detailed description of the various bounties, stabilisation funds, schemes and programs that regulate the industry.

Beekeeping

Although practised as a separate industry, beekeeping is also carried on in conjunction with other branches of farming. A feature of the industry is that it consists mainly of apiarists operating on a large scale with mobile equipment. Some of these apiarists move as far afield as from Victoria to Queensland in an endeavour to provide a continuous supply of nectar from flora suitable for their bees.

NOTE: Statistics in the following table relate, for the years 1974–75 and 1975–76, to apiarists with forty or more hives. Information from 1956–57 to 1973–74 covered the operations of apiarists with five or more hives (six or more in New South Wales), and previous to that year generally all apiarists were included.

BEEKEEPING STATISTICS

Year	Number of apiarists	Number of beehives		Honey produced			Beeswax produced	
		Productive	Total	Quantity	Average production per productive hive	Gross value	Quantity	Gross value
				'000 tonnes	kg	$'000	tonnes	$'000
1949–50	7,643	328	509	11.6	35.5	1,577	147	97
1954–55 (*a*)	7,573	326	457	15.3	46.8	2,930	200	266
1959–60	5,768	362	465	20.7	57.1	4,780	275	310
1964–65	5,768	326	457	19.1	58.5	4,916	249	228
1969–70	5,518	368	482	22.3	60.5	4,427	307	397
1971–72	5,803	384	524	20.2	52.7	6,136	264	320
1972–73	5,926	395	528	18.1	45.7	8,130	261	294
1973–74 (*b*)	5,779	409	544	21.2	51.8	11,768	322	525
1974–75	2,266	381	491	20.6	54.2	9,292	326	515
1975–76	2,285	377	497	21.4	57.2	10,453	368	633

(*a*), (*b*) *see* Note above.

EXPORTS OF HONEY AND BEESWAX

Year	Honey		Beeswax	
	Quantity	*Value f.o.b.*	*Quantity*	*Value f.o.b.*
	'000 tonnes	$'000	'000 tonnes	$'000
1949–50 . . .	9.4	1,628	161	107
1954–55 . . .	10.6	2,079	118	126
1959–60 . . .	6.2	1,090	95	97
1964–65 . . .	6.2	1,431	117	112
1969–70 . . .	6.7	1,773	113	166
1971–72 . . .	8.8	3,622	97	135
1972–73 . . .	8.0	4,722	41	56
1973–74 . . .	4.7	3,505	234	356
1974–75 . . .	9.6	5,783	243	459
1975–76 . . .	11.5	6,325	217	399

Honey levy

Under the *Honey Levy Act* 1962, a levy is imposed on domestic sales of honey for the purpose of financing the operations of the Australian Honey Board. The current rate of levy, which became effective on 1 October 1975, is 1.3 cents per kg; it can be increased by regulation to a maximum of 2.2 cents per kilogram.

In April 1974 an export charge of 0.3 cents per kg was introduced under the *Honey Export Charge Act* 1973 to provide necessary additional finance for the Honey Board to regulate Australian honey exports and undertake associated promotional and research activities. This levy may be increased by regulation to a maximum of 1 cent per kg.

For further information, *see Beekeeping, Australia* (7214.0).

Eggs and egg products

EGGS AND EGG PRODUCTION: SUPPLY AND UTILISATION
(Eggs in shell weight)

Year	*Production(a)*		*Exports*	*Processed food(b)*	*Apparent consumption in Australia as human food*	
	Quantity	*Gross value*			*Total*	*Per head per year*
	'000 tonnes	$ million	'000 tonnes	'000 tonnes	'000 tonnes	kg
1949–50 . .	119.9	51.5	14.2	19.7	86.7	10.8
1954–55 . .	117.3	81.3	12.5	17.8	87.2	9.6
1959–60 . .	118.3	90.5	2.0	16.2	99.7	9.8
1964–65 . .	153.1	94.5	2.9	21.7	128.4	11.4
1969–70 . .	185.3	114.6	3.5	36.5	145.3	11.7
1971–72 . .	201.5	110.9	4.7	46.2	150.3	11.7
1972–73 . .	193.2	117.4	4.5	35.9	152.8	11.7
1973–74 . .	189.0	147.8	2.1	31.5	155.0	11.7
1974–75 . .	197.7	171.7	2.0	38.4	157.3	11.7
1975–76 . .	n.a.	178.5	n.a.	n.a.	n.a.	n.a.

(*a*) Includes estimates for uncontrolled commercial production and production by self-suppliers. (*b*) Includes egg products as pulp and powder; also includes wastage.

Commercial egg production rose steeply following the introduction in 1965 of the Council of Egg Marketing Authorities of Australia (CEMA) Stabilisation Plan. However, disposals of eggs-in-the-shell lagged, and exports and stocks of egg pulp packed for export rose substantially. Average net returns to producers fell in 1971–72 to the lowest level since 1950–51. By 1972–73 producer returns rose significantly through improved domestic and export prices, and, as part of a scheme to control commercial egg production, a national hen quota was agreed to by the states in October 1972. It was believed that hen quotas encouraged changes in husbandry practices which boosted average productivity of laying hens.

Egg consumption.

There is a large section of the industry, including eggs produced in areas outside the control of the Egg Board and by backyard poultry keepers, for which production and consumption data are not available. This has been variously estimated at about 40 per cent of *recorded* production.

Exports

Egg pulp is Australia's major egg export product, with Japan being the most important market. As Japan is aiming at self-sufficiency, the prospects for expanding Australia's exports to Japan are not encouraging. Increased transport costs are likely to affect the export of shell eggs, particularly to the Middle East.

EXPORTS OF EGGS AND EGG PRODUCTS

			Eggs not in shell			
	Eggs in shell		*Liquid form*		*Dry*	
Year	*Quantity*	*Value f.o.b.*	*Quantity*	*Value f.o.b.*	*Quantity*	*Value f.o.b.*
	'000 doz	$'000	tonnes	$'000	tonnes	$'000
1949–50 . .	23,047	5,897	7,633	3,812	360	311
1954–55 . .	20,266	7,042	9,751	4,630	441	319
1959–60 . .	2,581	1,012	7,327	3,998	3	13
1964–65 . .	3,327	921	7,765	3,840	72	123
1969–70 . .	3,956	987	17,461	6,211	57	94
1971–72 . .	5,909	1,455	16,581	6,261	303	380
1972–73 . .	5,552	1,470	23,728	9,578	282	458
1973–74 . .	2,203	872	12,974	5,521	401	654
1974–75 . .	2,343	951	11,627	7,229	96	121
1975–76 . .	2,618	1,033	15,858	9,412	58	96

For further details on eggs and egg products *see* the monthly bulletins *Chicken Hatchings* (7207.0) and *Apparent Consumption of Foodstuffs and Nutrients* (4306.0).

Rural improvements

The Soils of Australia

Year Book No. 52 contains an article (pages 873–9) on the soils of Australia which deals with the following matters: nature and development of Australian soils, including the agricultural development of soils, and types of Australian soils. A soil map of Australia and illustrations are included on plates 47 to 51 of Year Book No. 52.

Fertilisers

The bulk of Australia's requirements of nitrogenous and phosphatic fertilisers is supplied by the domestic industry. Requirements of potassic fertilisers are primarily imported. Production of nitrogenous fertilisers is based on both Australian natural and refinery gas and imported naphtha feedstocks. Production of phosphatic fertilisers is dependent upon imported phosphate rock but, with the development of domestic rock deposits, rock from these sources will be phased out of local manufacture.

As a result of widespread phosphate deficiency in Australian soils, phosphatic fertilisers account for a large proportion of usage both on crops and pastures.

Principal crops and pastures fertilised, etc.

Information regarding the principal crop and pasture areas treated with artificial fertilisers, and the quantity of artificial fertilisers (superphosphate, nitrates, etc.) used, is given in the following tables.

ARTIFICIAL FERTILISERS: AREA AND USAGE

Year	*Area fertilised*	*Super-phosphate used*	*Nitrogenous fertilisers used*	*Other fertilisers used*
	'000 ha	'000 tonnes	'000 tonnes	'000 tonnes
1949–50 . .	11,316	1,328	149	
1954–55 . .	14,092	1,735	175	
1959–60 . .	17,262	2,127	234	
1964–65 . .	24,542	3,224	379	
1969–70 . .	28,133	3,780	662	
1971–72 . .	24,149	3,160	259	367
1972–73 . .	26,076	3,522	276	392
1973–74 . .	29,529	4,110	367	360
1974–75 . .	24,858	3,367	335	360
1975–76 . .	18,976	2,222	353	298

Since the Second World War there has been a great expansion of the area of sown pasture accompanied by an increased use of fertilisers. New pasture varieties (including tropical species) have been developed, and nutrient or trace element deficiencies in soils identified.

Up to 90 per cent of all artificial fertilisers used in Australia are made up of superphosphate, over half of which is used on pastures, mainly in areas with moderate to good rainfall. Large quantities are also used on cereal crops. The increased use of fertilisers, combined with improved grass and crop species, and more scientific methods of crop and pasture rotation, has probably succeeded in reversing the declining trend in the fertility of Australian soils, at least in the more developed regions.

SUPERPHOSPHATE USAGE

	Selected crops and pastures					
Year	Sown and native pastures	Lucerne	Wheat	Other cereals	Sugar cane	Total
	AREA FERTILISED ('000 hectares)					
1949–50 . .	5,269		5,610	1,446	100	11,316
1954–55 . .	7,950		4,379	2,886	130	14,092
1959–60 . .	9,919		4,112	2,546	138	17,262
1964–65 . .	15,227		6,044	2,580	215	24,542
1969–70 . .	16,211		7,623	3,381	228	28,133
1971–72 . .	13,296	483	5,619	4,009	234	24,149
1972–73 . .	15,256	497	6,071	3,535	240	26,076
1973–74 . .	17,994	495	7,147	3,258	236	29,529
1974–75 . .	14,484	639	6,358	2,678	248	24,858
1975–76 . .	8,568	346	6,276	3,092	267	18,976
	SUPERPHOSPHATE USED ('000 tonnes)					
1949–50 . .	707		562	172	6	1,328
1954–55 . .	1,069		444	345	13	1,735
1959–60 . .	1,321		406	289	12	2,127
1964–65 . .	2,170		648	308	11	3,224
1969–70 . .	2,353		867	413	18	3,780
1971–72 . .	1,896	77	623	456	19	3,160
1972–73 . .	2,233	80	688	411	20	3,522
1973–74 . .	2,709	89	804	402	21	4,110
1974–75 . .	2,077	113	728	326	21	3,367
1975–76 . .	1,031	53	665	354	26	2,222

Pasture improvement

An article on pasture improvement, which includes notes on indigenous and introduced species of grasses and traces the development of pasture research in Australia, appears on pages 1001–1002 of Year Book No. 49.

Soil conservation

Year Book No. 49 contains an article (pages 1003, 1004) on soil conservation which deals with the following matters: land use and soil erosion, agents of erosion, prevention and control, and the activities of various Federal and State authorities which promote and co-ordinate research into the problems of soil erosion and the initiation of preventive measures.

The chief sources of Australia's supplies of natural phosphate are Nauru, Christmas Island (Indian Ocean), Gilbert and Ellice Islands and Morocco. Sodium nitrate is obtained chiefly from Chile and the U.S.A.

PRODUCTION AND IMPORTS OF FERTILISERS

Item		*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*
PRODUCTION						
Superphosphate (*a*)	'000 tonnes	n.a.	4,962	5,288	3,092	n.a.
Mixed chemical fertilisers (including complete manures)	'000 tonnes		1,039	1,503	1,049	n.a.
Leaf and foliage type fertilisers (including dry and liquid form)	tonnes		394	300	368	n.a.
Manures (without added chemical fertilisers) (*b*)	tonnes		12,218	18,864	9,554	n.a.
IMPORTS						
Crude fertilisers (mainly natural phosphate)	'000 tonnes	1,658	2,285	3,113	2,651	1,462
	Value $m	18.4	22.9	35.5	74.6	53.7
Manufactured, mineral or chemical fertilisers—						
Nitrogenous(*c*)	'000 tonnes	13	13	7	12	8
	Value $m	0.8	0.8	0.5	2.5	0.6
Potassic(*d*)	'000 tonnes	147	165	183	211	101
	Value $m	4.2	4.7	5.2	9.5	6.1
Other(*e*)	'000 tonnes	18	8	7	5	4
	Value $m	1.3	0.7	0.9	1.1	1.1

(*a*) Includes double and triple superphosphate and ammonium phosphate in terms of single superphosphate. (*b*) Blood, bone and/or offal. (*c*) Mainly ammonium nitrate, ammonium sulphate, calcium ammonium nitrate, sodium nitrate and urea containing in the dry state more than 45 per cent by weight of nitrogen. (*d*) Mainly potassium chloride and potassium sulphate. (*e*) Includes phosphatic fertilisers and N.P.K. complete fertilisers.

NOTE: Production data for 1971–72 is not available as no Manufacturing Census was held in that year.

Aerial agriculture

Extensive use is made of aircraft for top-dressing and seeding, for spraying and dusting of crops and pastures and for pest and vermin extermination.

AERIAL AGRICULTURE

	Area ('000 hectares)			*Materials used ('000 tonnes)*		
Year ended 31 March	*Top dressed and seeded*	*Sprayed*	*Total(a)*	*Superphosphate*	*Seed*	*Total flying time '000 hours*
1960	1,050	389	1,485	127.8	0.3	n.a.
1965	5,725	978	6,734	666.6	1.6	108.8
1970	4,156	1,507	6,017	559.8	1.3	102.6
1973	3,359	1,355	4,788	446.2	1.6	89.4
1974	4,870	1,870	6,776	546.0	2.5	93.3
1975	3,378	1,544	5,080	473.8	4.8	89.2
1976	1,164	2,059	3,314	105.2	3.5	53.8
1977	1,381	1,624	3,064	151.5	2.5	49.6

(*a*) Includes other types of treatment (rabbit baiting, etc.).

Irrigation on rural holdings

Irrigation is one of the factors by which rural industry is further developed. The variability in stream flow and annual rainfall means that successful irrigation of crops and pastures is dependent on storage. Ground water supplies are also used in areas where the quantity is adequate and the quality is suitable. The area of land irrigated (nearly 1.5 million hectares in 1975-76) forms about 10 per cent of the total area under crops and only 0.3 per cent of the total area of rural holdings.

CROPS AND PASTURES: AREA IRRIGATED

('000 hectares)

Year	Sown and native pastures (including lucerne)	Cereals for all purposes	Sugar cane	Vegetables for human consumption	Fruit	Grapevines	All other	Total	Percent of total crops
1949–50	277.9	66.3	19.8	24.7	60.1		145.9	594.8	7.1
1954–55	441.4	(a)	25.2	26.6	67.1		143.7	704.0	7.8
1959–60	559.5		25.2	29.1	72.0		161.4	847.3	8.0
1964–65	664.2		48.8	38.1	51.9	37.0	329.9	1,169.9	8.3
1969–70	868.8		61.2	68.9	70.5	33.5	305.1	1,476.9	9.4
1971–72	1,085.7	252.9	58.4	67.9	61.0	44.7	92.8	1,663.4	11.7
1972–73	1,099.7	250.8	70.9	64.9	59.5	44.9	98.0	1,688.6	11.8
1973–74	973.1	177.4	66.2	59.2	54.6	44.3	85.8	1,460.6	9.7
1974–75	955.1	184.4	74.0	67.1	56.0	45.0	85.6	1,467.3	10.6
1975–76	920.4	252.7	73.1	63.4	52.9	45.6	66.6	1,474.9	10.1

(*a*) Included in 'All other'.

Sources of irrigation water

Most irrigation areas in Australia are supplied with water by a State authority, although there are also private schemes operating. The major reasons for expansion of the area irrigated have been public investment in the building of dams and major reservoirs and private investment by farmers in irrigation plant and earthworks. Sources of irrigation water are collected irregularly. The data may differ slightly from the above table.

SOURCES OF IRRIGATION WATER: 1971–72 AND 1974–75

('000 hectares)

	Surface water					
		Other(a)				
State	State irrigation schemes	Direct from rivers creeks, lakes etc	From farm dams	Underground water supply(b)	Town or country reticulated water supply	Total
			1971–72			
New South Wales	436.3	239.9	12.4	58.0	1.2	747.8
Victoria	500.8	67.0	18.8	14.2	3.3	604.2
Queensland	21.7	43.6	12.5	105.4	0.3	183.6
South Australia	21.7	18.7	2.4	32.7	0.6	76.1
Western Australia	18.0	3.7	5.1	4.3	0.1	31.3
Tasmania	n.a.	9.7	9.8	0.2	0.1	19.9
Australia	998.6	382.5	61.1	214.9	5.7	1,662.7
			1974–75			
New South Wales	264.1	226.3	12.5	33.9	1.6	538.4
Victoria	421.9	68.1	54.1	30.6	18.5	593.1
Queensland	25.1	48.4	14.2	109.3	0.1	197.1
South Australia	20.6	18.9	3.0	35.6	0.8	78.9
Western Australia	12.9	4.2	5.9	4.5	0.6	28.1
Tasmania	0.8	9.9	12.3	0.4	0.2	23.7
Australia	745.4	375.9	101.9	214.4	20.1	1,457.8

(*a*) Includes private group schemes. (*b*) E.g. bore, well, spear.

Agricultural machinery on rural holdings

Statistics on the type of agricultural machinery on rural holdings were published in early issues of the Year Book. Additional information was published in the bulletin *Rural Land Use, Improvements, Agricultural Machinery and Labour, 1974-75* (7103.0). Details of the sales of new tractors for agricultural purposes are given in the quarterly publication *Receipts, Sales and Stocks of New Tractors* (8507.0).

Rural employment

Employment on rural holdings

Prior to 1976 data on employment collected at the annual Agricultural Census differentiated between permanent full-time employees and temporary employees. Full-time workers excluded casual or seasonal workers and other persons working only part-time. Casual or seasonal workers were shown as temporary employees.

In the past it has been difficult to maintain comparability of employment on holdings from year to year because of the changing number of lessees and share farmers and because of the tendency of many farmers to include part-time family helpers as full-time workers in their returns.

Since the second World War there has been a decline in the percentage of people living in rural areas due, in part, to a rising standard of living accompanying the introduction of new techniques and increasing use of capital equipment, fuel, fertilisers, and pesticides. As a result, a smaller rural labour force is now producing a larger output of farm products.

RURAL EMPLOYMENT: MALES WORKING ON RURAL HOLDINGS
(Source: annual Agricultural Census)

	Males, permanent ('000)				*Persons working more than 15 hours a week ('000)*		
31 March	*Owners, lessees or share-farmers*	*Relatives, etc.*	*Employees (b)*	*Total*	*Males*	*Females*	*Persons*
1950 . . .	235.3	25.9	90.9	352.1	n.a.	n.a.	n.a.
1955 . . .	240.9	23.5	91.5	355.9	n.a.	n.a.	n.a.
1960 . . .	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1965 . . .	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1970 . . .	201.5	9.9	75.8	287.2	n.a.	n.a.	n.a.
1972 . . .	194.9	8.8	65.3	269.0	n.a.	n.a.	n.a.
1973 . . .	189.3	7.8	62.6	259.6	n.a.	n.a.	n.a.
1974 . . .	185.9	7.3	62.2	255.4	n.a.	n.a.	n.a.
1975 . . .	181.6	7.0	55.0	243.6	n.a.	n.a.	n.a.
1976 . . .	n.a.	n.a.	n.a.	n.a.	256.0	80.3	336.3

EMPLOYMENT IN AGRICULTURE

Month of May	*Males*	*Married women*	*All females*	*Persons*
1965 . . .	378.5	39.1	54.4	432.9
1970 . . .	348.0	49.9	64.1	412.1
1973 . . .	305.1	54.7	65.3	370.4
1974 . . .	305.9	48.9	59.9	365.8
1975 . . .	297.6	52.1	62.4	360.0
1976 . . .	284.2	57.1	67.8	352.0
1977 . . .	290.2	63.4	75.2	365.4

Source: Quarterly population survey conducted by the ABS throughout Australia. For further details *see The Labour Force* (6203.0, 6204.0).

Regulation of Australian agricultural industries

Year Book No. 61, pages 837–57, contains a summary of the means by which agricultural industries are assisted and regulated. It is not intended as a comprehensive statement of all the consultative and legislative assistance and control measures that exist, but rather as a description of the way in which these processes affect the crops, livestock and livestock products referred to earlier in this chapter.

Many of the processes are also referred to in this Year Book in the relevant section of the chapter. For details on the operations of the Australian Agricultural Council, the Rural Reconstruction Scheme and the agricultural extension services provided by the States' Departments of Agriculture *see* Year Book No. 61, pages 837–839.

CHAPTER 14

FORESTRY AND FISHERIES

FORESTRY

Source of statistics

Statistics relating to total forest area have been derived from data supplied by various authorities concerned with forestry administration and by private forestry companies. Other information on forested areas has been provided by the Forestry and Timber Bureau. Statistics of timber and by-products have been compiled from the annual factory collections undertaken by the Statisticians in the several States. Figures of production of gums, resins and tanning barks have been provided by the State forestry authorities. Data of imports and exports of forest products and timber products have been compiled by the Australian Statistician as part of the statistics of overseas trade. The figures shown relate, in general, to years ended 30 June.

Objects of forestry

The main object of forestry authorities is to manage the forests of the country in a manner that will provide maximum benefits, both direct and indirect, for the community. The authorities aim to promote the multiple use concept in management under which forests remain in perpetuity as sources of valuable raw material, areas of natural beauty, sanctuaries for fauna and flora, and areas for scientific investigation and watershed protection. The provision of special protected areas such as forest parks for recreational use and for the conservation of plants and animals is an objective. Forestry also aims at improving existing forests and woodlands by properly controlled harvesting, by protection from such destructive agencies as fire, insects and diseases, and by inducing regeneration. The provision of a partial tree cover on denuded lands where this cover is necessary for protective purposes, and a complete cover when the land is more suited under forest than under other land use, are further aims of forestry.

General account of forests and timbers

The area of land in Australia suitable for the production of commercial timber as a primary crop is very small in comparison with the size of the continent. Productive or potentially productive forests cover 43 million hectares, and of these 99 per cent are natural forests. Thirty-five million hectares of the natural forests are dominated by eucalypts. For a description of the types of timber grown in Australia *see* Year Book No. 61, Chapter 24.

Extent of forested areas

The total area of forest, 43.0 million hectares, is based on a definition of forest which includes plantations, native forest with an existing or potential mature height of 20 metres or more, and cypress pine forest in commercial use regardless of height. The following tables show classifications of total forest area in Australia by forest type and by ownership.

CLASSIFICATION OF FOREST AREAS BY FOREST TYPE, 30 JUNE 1976

(*Source:* Forestry and Timber Bureau)

('000 hectares)

Forest type	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Rain forest	300	..	1,068	..	3	(*a*)464	37	..	1,872
Eucalypt—									
Productivity(*b*) I	1,618	648	212	..	176	(*a*)460	..	..	3,114
" (*b*) II	3,196	4,752	1,381	..	2,915	(*a*)1,804	..	(*c*)53	14,101
" (*b*) III	8,362	635	3,347	..	68	..	..	..	12,402
Tropical eucalypt and paper bark	..	..	4,078	..	7	..	2,450	..	6,535
Cypress pine	1,908	3	1,683	..	2	..	777	..	4,373
Plantations	(*d*)159	148	127	91	47	40	4	14	630
Total forest area	15,543	6,186	11,896	91	3,218	2,768	3,268	67	43,037

(*a*) As at 30 June 1972. (*b*) Eucalypt forest types have been grouped into three classes in descending order of productivity. (*c*) Includes areas of Eucalypt, Productivity Classes I and III. (*d*) As at 31 March 1976.

CLASSIFICATION OF FOREST AREAS BY OWNERSHIP, 30 JUNE 1976

(*Source:* Forestry and Timber Bureau)

('000 hectares)

Ownership	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
State forestry(*a*)	3,027	2,409	3,338	77	1,975	1,219	312	15	12,372
Other public(*b*)	6,409	3,039	6,607	..	494	363	2,640	51	19,603
National parks(*c*)	775	138	521	..	124	181	316	1	2,056
Private(*d*)	5,332	600	1,430	14	625	1,005	..	..	9,006
Total	**15,543**	**6,186**	**11,896**	**91**	**3,218**	**2,768**	**3,268**	**67**	**43,037**

(*a*) Publicly owned land, permanently reserved or dedicated primarily to timber production. (*b*) Publicly owned land, vacant or occupied under lease; not specifically secured for permanent timber production, but on which control of timber rests with the Crown. (*c*) Publicly owned land, permanently reserved for purposes other than timber production. (*d*) Privately owned land, and leasehold land, where the Crown has no control over timber rights.

Plantations

The indigenous forest of Australia does not contain adequate supplies of coniferous timber, and Australia's requirements have had to be met largely by imports. As a result of the planned policy of the forest services and of several private commercial organisations, the area of coniferous plantations, mainly of exotic species, is steadily increasing. It was natural that this aspect of forestry should receive earliest attention in South Australia, as this is the State most poorly endowed with natural forest. South Australia now has a large area of planted conifers, and for some years has been obtaining considerable quantities of timber from these plantations. Production is also increasing in other States, and the thinnings from their plantations are already supplying a significant volume of timber. At 30 June 1976, the total area of coniferous plantations was about 630,000 hectares.

The total production of roundwood from Australia's coniferous plantations is now more than 3.0 million cubic metres per annum and is expected to increase substantially during the next decade.

A special article giving a detailed account of the history and development of coniferous plantations and of the characteristics of individual species is included in Year Book No. 59, page 880.

Broadleaved plantations (mainly *Eucalyptus* and *populus ssp.*) comprise 34,400 hectares, a much smaller area than for the coniferous plantations. Plantations of ash eucalypts (including *E. delegatensis* and *E. regnans*) for pulpwood in Victoria, and poplar plantations in the Eastern States make up a substantial proportion of the total broadleaved plantation area. The following tables show total area of plantations in Australia classified by species and by ownership.

AREA OF PLANTATIONS CLASSIFIED BY SPECIES, 30 JUNE 1976

(*Source:* Forestry and Timber Bureau)

(Hectares)

	N.S.W.(a)	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Coniferous plantations—									
Pinus radiata	124,660	128,029	2,445	83,396	25,303	38,705	..	13,293	415,831
Pinus pinaster	..	535	..	6,009	21,385	..	..	..	27,929
Pinus elliottii	12,694	..	70,497	..	..	..	..	..	83,191
Pinus caribaea	..	..	8,070	..	..	..	1,657	..	9,727
Araucaria species	1,457	..	37,221	..	..	..	..	..	38,678
Other coniferous species	5,250	5,368	5,724	692	..	244	1,900	896	20,074
Total	**144,061**	**133,932**	**123,957**	**90,097**	**46,688**	**38,949**	**3,557**	**14,189**	**595,430**
Broadleaved plantations—									
Eucalyptus species	13,386	13,494	2,569	1,061	..	1,050	..	..	31,560
Populus species	1,644	445	..	..	..	..	..	..	2,089
Other broadleaved species	..	183	536	..	..	8	..	..	727
Total	**15,030**	**14,122**	**3,105**	**1,061**	..	**1,058**	..	..	**34,376**
Grand total	**159,091**	**148,054**	**127,062**	**91,158**	**46,688**	**40,007**	**3,557**	**14,189**	**629,806**

(*a*) As at 31 March 1976.

AREA OF PLANTATIONS CLASSIFIED BY OWNERSHIP, 30 JUNE 1976

(*Source:* Forestry and Timber Bureau)

(Hectares)

Ownership(a)	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Coniferous plantations—									
State forestry	115,526	67,730	99,300	75,636	39,074	26,960	3,557	14,189	441,972
Other public	592	3,501	..	95	..	..	..	..	4,188
Private	27,943	62,701	24,657	14,366	7,614	11,989	..	..	149,270
Total	**144,061**	**133,932**	**123,957**	**90,097**	**46,688**	**38,949**	**3,557**	**14,189**	**595,430**
Broadleaved plantations—									
State forestry	6,659	5,563	2,060	1,061	..	456	..	..	15,799
Other public	500	1,368	..	..	..	..	..	..	1,868
Private	7,871	7,191	1,045	..	..	602	..	..	16,709
Total	**15,030**	**14,122**	**3,105**	**1,061**	..	**1,058**	..	..	**34,376**
Grand total	**159,091**	**148,054**	**127,062**	**91,158**	**46,688**	**40,007**	**3,557**	**14,189**	**629,806**

(*a*) For definitions of the term 'State forestry', 'Other public' and 'Private', *see* footnotes to the table Classification of Forest Areas by Ownership on page 346.

Australian Government assistance for State softwood forestry operations

Under proposed new legislation the Australian Government will be authorised to enter into agreements with each of the States to provide financial assistance for the period 1977–78 to 1981–82 to cover the cost of maintaining those softwood forestry plantations previously established with Commonwealth assistance under the *Softwood Forestry Agreements Acts* of 1967, 1972 and 1976. Under these three agreements some $55.6 million has been provided to the States by way of loans to meet the cost of the establishment of some 100,000 hectares of plantations over and above certain levels of State plantings. The 1976 Agreement provided for a one year extension to the previous program, but assistance was limited to $6.0 million.

The assistance for the maintenance program will be provided by way of loans repayable over 20 years with repayments commencing 15 years after the date of each advance. Interest will either be capitalised over the deferment period, or paid as it falls due, depending upon State preferences.

Consideration is being given to the provision of assistance for the purchase of previously-cleared land for expansion of softwood plantations.

Payments under the proposed Act will be limited to $4.2 million in 1977-78, but thereafter the amounts provided will depend on State requirements for the maintenance component and any decision regarding further plantings.

Forest administration and research

Forestry and Timber Bureau

The functions of the Forestry and Timber Bureau were laid down in the *Forestry and Timber Bureau Act* 1930. They included forestry research and education, the study of timber supply, and advice to the Commonwealth Government on forestry matters. Following the transfer of the Australian Forestry School to the Australian National University in 1964 as the Department of Forestry in the University, the research functions of the Bureau were taken over by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) on 1 July 1975 as the nucleus of its Division of Forest Research. The remaining non-research functions of the Bureau, which include policy advice formulation, economic studies and the collection and dissemination of information and statistics on forest resources and industry, are administered by the Department of Primary Industry.

Commonwealth Scientific and Industrial Research Organisation

The Division of Forest Research covers a wide range of studies including the following: forest genetics, controlled environment, forest nutrition, forest botany, tree seeds, forest ecology, forest entomology and pathology, fire protection and watershed management. The Division maintains six regional establishments in the States and the Northern Territory. These research stations are run on a co-operative basis with State forest services and private forest companies or other Government instrumentalities. The Divisions of Building Research and Chemical Technology carry out a wide range of investigations relating to the properties of wood and the uses of wood and wood products. Research on processing logs and timber, solid and composite wood products, timber engineering, and the applications of wood in building is undertaken by the Division of Building Research. The Division of Chemical Technology was created in February 1974 following a reorganisation of the CSIRO research effort in which the previous Division of Applied Chemistry ceased to exist as a separate entity. The research program of the new Division of Chemical Technology is directed towards the recycling of resources, utilisation of renewable resources, and the protection and conservation of natural resources. Problems of the pulp and paper industry, and bushfire research are receiving particular attention.

Most of the present forest products activities of both Divisions are conducted at the CSIRO Forest Products Laboratory in South Melbourne. The Divisions provide assistance to individuals and industry, administer courses of instruction on timber properties and usage, and maintain co-operative projects with overseas authorities operating in the same fields.

Forestry in the Territories

The management of forests in the Australian Capital Territory is the responsibility of the Forests Branch of the Department of the Capital Territory. Forests in the Northern Territory are under the control of the Forestry Section of the Department of the Northern Territory.

Forestry activities of the States

Forestry on State-owned lands in the various States is the responsibility of the respective State Governments, but they do not exercise any control over forestry activities on private property. The powers and functions of State forest authorities are laid down under forest Acts and Regulations. In each State there is a department or commission to control and manage State forests. Its functions include the introduction of proper measures for the control and management of forest land; the protection of forest land; the conversion, marketing and economic utilisation of forest products; the securing of an adequate and permanent reservation of State forests; and the establishment and maintenance of coniferous forests to remedy the existing deficiency of conifers in Australia. All State forest services are actively engaged on research programs. Annual reports are issued by each State forest authority.

In addition to developing permanent forest reserves in each State, foresters are surveying all forested Crown lands with a view to obtaining dedications of new State forests to add to the permanent forest estate or to release for other uses areas unsuitable for forestry. In the States, publicly-owned land permanently reserved or dedicated primarily for timber production amounts to 12 million hectares, the timber on a further 19.6 million hectares not specifically reserved for permanent timber production being under the control of the Crown.

Private forestry

Privately-owned lands contribute considerably to the total production from Australian forests. The most important areas of managed native forest in private ownership are the forests owned by pulp and paper companies. Schemes of financial assistance to individual land owners—designed primarily to encourage establishment and management of coniferous plantations—have been introduced by the Governments of New South Wales and Victoria.

The area of privately-owned coniferous plantations is rapidly increasing and, here again, the pulp and paper companies are very active. In step with the increase in afforestation programs, the number of professional foresters employed in private forestry enterprise is increasing, while several are engaged on research.

The area of plantations established by private companies and individuals is included in the table on page 347.

Forestry education

The Australian National University's Department of Forestry in Canberra and the School of Forestry of the University of Melbourne offer undergraduate courses leading to a Bachelor of Science degree in forestry. Universities in all States have facilities for post-graduate studies for forestry graduates. Foresters for the Forests Commission of Victoria are trained at a departmental Forestry School at Creswick, Victoria. States other than Victoria offer traineeships to students selected for university training in forestry. These traineeships support the students and meet their expenses throughout the four year university course. Successful graduates are appointed as forestry officers in the State Forest Services. The Commonwealth Government also offers forestry scholarships to cover the cost of university training in forestry for those selected. A limited number of post-graduate scholarships are also available.

The Australian Forestry Council

The Australian Forestry Council comprises the Ministers responsible for forestry in the six State Governments and the Commonwealth Government.

The Council is intended to provide the means for the mutual exchange between the State and Commonwealth Governments of information and views on forestry. It co-ordinates research into problems affecting the establishment, development, management, and fire protection of all forests, and the utilisation of forest products. It assists in co-ordinating the work of State and Commonwealth Governments and also private enterprise in the development of Australian forestry.

The Council is supported by a Standing Committee consisting of the Director-General of the Forestry and Timber Bureau, the heads of each of the six State Forest Services, the Chief of the Division of Forest Research, CSIRO, and the Secretary of the Department of the Northern Territory.

Employment in forestry

In the following table details are shown of the number of persons employed by State forestry departments, the Department of the Capital Territory, the Department of the Northern Territory, the Forestry and Timber Bureau in the relevant States and Territories, and the private sector of the forestry industry at 30 June 1976. The table excludes staff of forestry training establishments.

PERSONS EMPLOYED IN FORESTRY(*a*), 30 JUNE 1976

Occupational group	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Professional staff—									
Foresters . . .	207	249	125	55	71	77	12	40	836
Others	83	69	110	32	5	15	..	31	345
Field and other technical staff	83	285	125	60	297	200	42	58	1,150
Clerical staff . . .	480	306	276	137	83	157	27	48	1,514
Labour(*b*)	1,289	1,257	1,414	379	532	591	121	119	5,702
Extraction(*c*) . . .	2,713	890	2,350	191	846	2,034	12	69	9,105
Total . . .	**4,855**	**3,056**	**4,400**	**854**	**1,834**	**3,074**	**214**	**365**	**18,652**

(*a*) The Forestry and Timber Bureau has provided figures for employment within its own organisation. (*b*) Staff engaged in silvicultural forest works, etc. (*c*) Staff engaged in felling, carting, etc. Includes direct employees only.

Forest production

FOREST PRODUCTION(*a*) 1975-76

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Production of logs for sawing, peeling, slicing or pulping—										
Broadleaved—										
Eucalypt and related species . . .	'000 m³	1,985	1,774	480	7	1,102	3,347	..	..	8,695
Rain forest species .	„	88	..	167	..	..	..	..	..	255
Coniferous—										
Indigenous forest conifers—										
Cypress . .	„	566	..	175	..	..	..	1	..	2,705
Other . . .	„		..	42	..	..	10	..	..	
Plantation grown conifers . . .	„		531	210	921	45	73	..	131	
Total . .	„	**2,639**	**2,305**	**1,073**	**928**	**1,148**	**3,430**	**1**	**131**	**11,655**
Gross value of forest products(*b*)—										
Logs(*c*)	$'000	39,106	46,354	21,233	15.519	14,669	42,496	30	1,731	181,137
Other forest products(*d*).	„	17,299	6,880	7,414	2,696	8,735	4,495	18	123	47,661
Total . .	„	**56,405**	**53,234**	**28,647**	**18,215**	**23,404**	**46,991**	**48**	**1,854**	**228,798**
Local value of forest products(*e*)—										
Total . .	„	**56,365**	**52.536**	**19,585**	**18,188**	**21,717**	**40,674**	**48**	**1,854**	**210.967**

(*a*) Excludes some production from private land thought to be relatively small, details of which are not available. (*b*) Gross production is valued at principal markets. (*c*) *See* footnote (*c*) to the table Forest Production: Australia, below. (*d*) Includes firewood, sleepers, transomes, girders, bridge timbers, mining timber, poles, piles, charcoal (forest production only), tanning bark, essential oils, eucalyptus leaves, crude rutin. (*e*) Gross production valued at place of production. *See* footnote (*b*) above.

FOREST PRODUCTION(*a*): AUSTRALIA

		1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Production of logs for sawing, peeling, slicing or pulping—						
Broadleaved—						
Eucalypt and related species	'000 m³	7,606	8,381	9,423	9,653	8,695
Rain forest species	„	370	396	316	328	255
Coniferous—						
Indigenous forest conifers—						
Cypress	„	333	350	346	321	2,705
Other	„	71	80	61	58	
Plantation grown conifers	„	2,057	2,272	2,287	2,487	
Total	„	**10,436**	**11,478**	**12,433**	**12,847**	**11,655**
Gross value of forest products(*b*)—						
Logs(*c*)	$'000	115,257	133,964	159,397	172,833	181,137
Other forest products(*d*)	„	35,921	36,610	33,946	39,806	47,661
Total	„	**151,177**	**170,574**	**193,344**	**212,639**	**228,798**
Local value of forest products(*e*)—						
Total	„	**138,809**	**154,919**	**176,213**	**195,445**	**210,967**

(*a*) Excludes some production from private land, thought to be relatively small, details of which are not available. (*b*) *See* footnote (*b*) to the table Forest Production, 1975–76, above. (*c*) Included in this category are amounts attributable to sawmillers who carry out their own logging activities as a secondary part of their operations. As such, the values are attributable to the sawmilling industry which is part of manufacturing industry. However, the amount has been included in this table so that the overall value of forest products might be shown. The amount in question was estimated to be $29.5 million in 1969–70 or 30.5 per cent of the total of $96.6 million. An estimate of the amount for subsequent years is not available. (*d*) Includes firewood, sleepers, transomes, girders, bridge timbers, mining timber, poles piles, charcoal (forest production only), tanning bark, essential oils, eucalyptus leaves, crude rutin. (*e*) Gross production valued at place of production. *See* footnote (*b*) to the table above.

Timber and timber products

The selected details shown below have been compiled from the annual census of manufacturing. For further details of the Manufacturing Census *see* Chapter 17, Manufacturing and Internal Trade.

MANUFACTURING ESTABLISHMENTS(*a*)—SUMMARY OF OPERATIONS, 1975-76

Industry class	*ASIC code(b)*	*Number of establishments operating at end of June*	*Persons employed (c)*	*Turnover*	*Value added*	*Fixed capital expenditure (outlay on fixed tangible assets less disposals)*
		No.	No.	$'000	$'000	$'000
Log sawmilling	2511	915	14,293	319,513	194,207	12,568
Plywood and manufactured boards	2513	78	6,177	195,232	89,204	15,230

(*a*) All manufacturing establishments owned by multi-establishment enterprises and single establishment enterprise; with four or more persons employed. (*b*) Australian Standard Industrial Classification. (*c*) Average over whole years includes working proprietors.

TIMBER AND SELECTED TIMBER PRODUCTS PRODUCED

Item		*1972–73*	*1973–74*	*1974–75(a)*	*1975–76(a)*
Undressed sawn timber—					
Recovered from sawn logs—					
Australian grown—					
Broadleaved	'000 cu m	2,561	2,563	2,407	2,988
Coniferous	„	848	773	823	745
Total	„	**3,408**	**3,336**	**3,230**	**3,733**
Woodchips (green weight)—					
Hardwood (broad leaved)	'000 tonnes	2,445	3,070	3,146	2,603
Plywood—					
Commercial—(surface measure)	'000 sq m	9,723	7,168	6,347	5,963
(1 mm basis)	„	59,196	46,956	30,413	35,192
Waterproof—(surface measure)	„	4,050	4,884	4,430	2,920
(1 mm basis)	„	44,625	51,687	35,716	31,648
Particle board (resin bonded)	cu m	n.a.	n.a.	389	460
Wood pulp—					
Chemical	tonne	153,949	169,713	172,274	163,582
Mechanical	„	378,543	446,867	404,684	392,675
Other	„				
Paper—					
Newsprint	tonne	199,054	204,075	196,346	206,228
Printings	„	57,404	74,229	58,864	46,510
Writing (incl. cartridge)	„	80,720	99,744	100,351	69,943
Kraft	„	299,891	347,745	284,535	301,516
Blotting	„	32,608	41,136	37,313	29,381
Duplicating	„				
Other paper	„				
Tissue and sanitary papers	„	77,422	90,033	92,457	88,716
Paperboard (incl. strawboard)	„	411,246	443,905	378,324	369,517

(*a*) Excludes production of small single establishment enterprises with less than four persons employed and establishments engaged in non-manufacturing activities but which may carry on, in a minor way, some manufacturing.

Woodchips

On 24 April 1976, under direction of the Australian Government, the Standing Committee on Science and the Environment announced the start of an inquiry into the environmental impact of the woodchip industry. The scope of the inquiry covered all woodchip programs in Australia engaged in production for export or for the domestic market and their immediate environmental impact, i.e. the impact on soil, air and water and on forest fauna and flora. The findings of the Standing Committee on Science and the Environment are shown in the Committee's report *Woodchips and the Environment* issued in 1977 by the Australian Government Publishing Service. This report includes considerable statistical and descriptive material.

The woodchip industry entails the procurement of wood and its mechanical reduction to chips about the size of an Australian 50 cent piece. These chips are either exported for pulping or retained for use in domestic pulping operations. In 1975 76 the production of hardwood chips in Australia amounted to 2,603,000 tonnes.

Imports

IMPORTS OF CRUDE WOOD AND TIMBER

		Quantity			*Value ($'000 f.o.b.)*		
		1973–74	*1974–75*	*1975–76*	*1973-74*	*1974–75*	*1975–76*
Crude wood, and timber—							
Wood waste and charcoal		..	..	..	13	26	14
Wood in the rough or roughly squared	'000 cu m	104	43	156	5,002	1,777	2,221
Wood shaped or simply worked—							
Railway or tramway sleepers	"	..	13	22	..	1,863	3,458
Timber, sawn lengthwise, sliced or peeled, but not further prepared, of a thickness exceeding 5 mm—							
Conifer—							
Douglas fir	"	461	383	427	37,931	30,097	36,773
Hemlock and balsam	"	165	66	65	10,929	4,692	3,992
Radiata pine	"	50	39	5	2,551	2,594	464
Redwood	"	18	3	9	2,636	450	1,577
Western red cedar	"	109	86	80	13,120	9,056	10,252
Other	"	27	24	22	2,236	(*a*)2,066	(*b*)2,059
Total conifer	"	*830*	*784*	*608*	*69,403*	*48,955*	*55,117*
Non-conifer(*c*)	"	380	268	275	34,702	23,795	27,494
Timber (including blocks, strips, etc.), planed, tongued, grooved, rebated, etc., but not further manufactured—							
Conifer	'000 cu m	23	29	41	2,118	3,405	4,684
Non-conifer	"	35	38	50	4,172	4,841	7,322

(*a*) Includes a value of $5,700 for which no quantity has been included. (*b*) Includes a value of $11,000 for which no quantity has been included. (*c*) Total values for this item for 1973–74, 1974–75 and 1975–76 include values of $100,000, $181,000 and $134,000 respectively, for which no quantities have been included.

Exports

EXPORTS OF CRUDE WOOD AND TIMBER(*a*)

		Quantity			*Value ($'000 f.o.b.)*		
		1973–74	*1974–75*	*1975–76*	*1973–74*	*1974–75*	*1975–76*
Crude wood, and timber—							
Wood waste and charcoal (including shell and nut charcoal)	'000 m^3	..	..	..	3	44	12
Pulpwood	"	6	45	54	562	1,139	1,078
Wood in the rough or roughly squared	"	7	13	2	607	629	252
Wood, shaped or simply worked—							
Railway or tramway sleepers	"	14	38	44	1,183	3,511	4,902
Timber, sawn lengthwise, sliced or peeled, but not further prepared, of a thickness exceeding 5 mm—							
Conifer	"	1	1	1	192	228	92
Non-conifer—Jarrah	"	15	4	1	1,101	350	159
Other	"	26	18	33	3,407	2,601	2,856
Timber (including blocks, strips and friezes for parquet or wood block flooring, not assembled), planed, tongued, etc.—							
Conifer	"	2	1	..	214	216	82
Non-conifer	"	5	9	1	845	388	184

(*a*) Excludes re-exports.

FISHERIES

Collection and presentation of fisheries statistics

Source and basis of statistics

Statistics presented in this chapter have been collected by a number of authorities. The various State fisheries authorities have supplied, through the Deputy Commonwealth Statisticians in the States, the details of employment, boats, equipment, and production of the general fisheries. The Fisheries division of the Department of Primary Industry has supplied particulars of the whaling industry and pearl-shell fishery. Statistics of the processing of general fisheries products and of overseas trade in the products of fishing and whaling have been compiled in the Australian Bureau of Statistics.

In the preparation of Australian fisheries production statistics, the quantities of individual products are generally in terms of the form in which they are taken from the water. For example, the statistics of fish production published in this chapter are in terms of 'estimated live weights' which are calculated from landed weights by using conversion factors for each species in each State. These conversion factors allow for the fact that the quantities of fish reported are frequently in a gutted, headed and gutted, or otherwise reduced condition. Crustaceans are reported on an 'estimated live weight' basis and molluscs (edible) on a 'gross (in-shell) weight' basis. The figures for pearl-shell and trochus-shell refer to the actual quantities of dry shell for sale and exclude the weight of the fish.

Fisheries resources and their commercial exploitation

Fish

Approximately 2,000 species of marine and freshwater fish occur in and around Australia, about forty of which support substancial commercial fisheries. Most fishing is confined to waters over the continental shelf on the populous eastern and south-eastern seaboard, including Tasmania and South Australia, and off the south-western corner of the continent. As in other countries, fisheries in Australia may be divided into estuarine fisheries, located in the tidal waters of rivers and coastal lakes, beaches and bays; pelagic fisheries, which exploit species inhabiting the surface layers of the open ocean; and demersal fisheries, which fish the bottom layers of the sea. Estuarine fisheries produce considerable quantities of mullet (mainly *Mugil cephalus*), bream (*Acanthopagrus spp.*) and, in northern Australia, the valuable giant perch (*Lates calcarifer*). Important freshwater fisheries in New South Wales, Victoria and South Australia include those for Murray cod (*Maccullochella spp.*), golden perch (*Plectroplites ambiguus*) and eels (*Arguilla australis*). Trout are farmed in New South Wales, Victoria and Tasmania. Important pelagic fisheries include those for Australian 'salmon' (*Arripis trutta*), southern bluefin tuna (*Thunnus maccoyii*), snoek (*Leionura atun*), spanish mackerel (*Scomber omerus*), and clupeoids (*Sardinops neopilchardus* and *Engraulis australis*). Demersal fisheries include those for snapper (*Chrysophrys auratus*), whiting (*Sillaginidae*) and from tropical waters the so called 'cods' (*Epinephelus*, etc.). Trawl fisheries off New South Wales and Victoria yield species such as flathead (*Neoplatycephalus* and *Trudis spp.*), morwong (*Nemadactylus spp.*) and John Dory (*Zeus faber*). Expansion of trawling onto the continental slope off central New South Wales and in Western Bass Strait has established a fishery for gem fish (*Rexea solandri*). There has been a renewal of interest in the Great Australian Bight, several grounds resulting in the establishment of a joint venture operation employing three large modern freezer trawlers. The previously valuable fishery for edible school and gummy shark (*Galeorhinus australis* and *Mustelus antarcticus*) in south-eastern Australia declined significantly in the year 1972-73 because of the discovery of a high mercury content in large school shark, but production and prices have since risen as the fishery for gummy sharks has expanded, although production has not attained its former level. A fishery for clupeiods in the Bass Strait which supplies the raw material for a fish meal plant at Lakes Entrance, Victoria, is the only established 'industrial fishery' in Australia.

Crustaceans

The western and southern rock lobsters (*Panulirus longipes cygnus* and *Jasus novaehollandiae*), which are taken on rocky reefs around the southern half of Australia, provide the most valuable fishery in Australia. Prawns (*Penaeus* and *Metapenaeus spp.*) are taken in estuarine, coastal and offshore waters of all States except Tasmania. Over the last decade, important fisheries have been established in northern Australia and South Australia. Interest in deep water prawn stocks off New South Wales is growing. Bay lobsters (*Thenus* and *Ibacus spp.*) are taken incidentally to prawn trawling operations. Crabs (*Scylla* and *Portunus spp.*) are taken mainly in Queensland, New South Wales and Western Australia.

Molluscs (edible)

Naturally-occurring oysters are harvested in all States; in New South Wales and Queensland the Sydney rock oyster (*Crassostrea commercialis*) is cultured commercially. The introduction of the Pacific oyster (*Crassostrea gigas*) to Tasmania and South Australia has provided a limited supply in those States. Following a serious decline in catches in the scallop (*Pecten meridionalis*) fishery based on stocks in Port Phillip Bay, Victoria, new offshore beds were located in southern New South Wales, eastern Victoria, northern Tasmania and south-western Western Australia. However, substantial fluctuations in abundance have resulted in erratic production from year to year, and only the Victorian and Tasmanian beds are currently producing. A fishery based on the saucer scallop (*Amusium balloti*) is located off south and central Queensland and there is a small fishery for the same species in Shark Bay, Western Australia. An important abalone fishery has been developed since 1964 in south-east Australia with Tasmania, Victoria and South Australia providing the bulk of the catch. There is also a small abalone fishery in South-west Australia. Mussels (*Mytilus planulatus*) are harvested in Victoria and New South Wales. Other small quantities of cephalopods, mainly squid, are produced in many localities.

Pearl-shell and trochus-shell

The shell of the Australian species of pearl oyster (*Pinctada maxima*) is taken from various localities in the tropical waters of Australia from Broome in Western Australia to Cairns in Queensland for the manufacture of buttons, knife handles, etc. Live pearl-shell is used for pearl culture, *Pinctada maxima* being capable of producing pearls which are the largest in the world and which command top market prices. Trochus-shell is found mainly on coral reefs off the Queensland coast, although small quantities occur in Western Australia.

Whales

The Australian whaling industry formerly exploited the baleen (humpback) whales during their winter migrations along the east and west coasts of Australia. However, owing to the total prohibition placed on their capture by the International Whaling Commission in 1963, Australian whaling is now confined to the sperm whale (*Physeter catodon*) which has been taken in the southern waters of Western Australia since 1955. Processing operations were carried out by several shore stations, but now only one station—at Albany, Western Australia—is still operating.

General

Detailed information on the history of the development of fisheries industries in Australia is given in Year Book No. 55, pages 976–7.

Fisheries administration and research

The Constitution of the Commonwealth (Section 51 (x)) assigns to the Commonwealth Government power to legislate for fisheries in Australian waters beyond territorial limits, the residual power in respect of waters within territorial limits (including inland waters) resting with the States. The Commonwealth Government has made similar arrangements for each of its Territories. Each State and Territory has legislation regulating fisheries in waters within its jurisdiction. Persons taking fish for sale, and their boats, are required to be licensed, and provision is made for management of the fisheries.

The Commonwealth Government laws regulating the fisheries are the *Fisheries Act* 1952, the *Continental Shelf* (*Living Natural Resources*) *Act* 1968 and the *Whaling Act* 1960. Each of these applies in accordance with the Commonwealth Government's fishery power under the Constitution.

Fisheries Act

This Act requires persons engaging in fishing and boats used for fishing to be licensed if the purpose of the fishing is commercial. It also provides for management and conservation of the fisheries. The Act applies to Australian residents and their boats in waters proclaimed under the Act and, since 1968, to foreign boats and their crews in the zone of waters extending 12 nautical miles from the baselines of the territorial sea but excluding waters within territorial limits (where State law applies).

Continental Shelf (Living Natural Resources) Act

This Act implements in Australian law the sovereign rights conferred on Australia by the Convention on the Continental Shelf, Geneva, 1958 in respect of the organisms belonging to sedentary species (that is, organisms which, at the harvestable stage, either are immobile on or under the seabed, or are unable to move except in constant physical contact with the seabed or the subsoil) on the continental shelf. The continental shelf comprises the seabed and subsoil of the submarine areas adjacent to the coast but outside the territorial sea to a depth of 200 metres, or beyond that depth where the depth of the superjacent waters admits of the exploitation of the natural resources of the area. The Act requires the licensing of persons searching for and taking sedentary organisms, of boats used to search for and take sedentary organisms, and of persons employing divers, trial divers and divers' tenders in taking sedentary organisms if such activities are carried out in controlled areas of the continental shelf of Australia or the Territories for a commercial purpose. Provision is made for proclamation of sedentary organisms to which the Act applies, for the establishment of controlled areas of continental shelf in respect of specified sedentary organisms, and for the management and conservation of sedentary organisms in controlled areas (the last of these applying to all persons whether the purpose of the taking of the sedentary organism is commercial or not). The Act applies to all persons including foreigners, and to all boats including foreign boats.

Whaling Act

This Act implements in Australian law the obligations imposed on Australia by virtue of its adherence to the International Convention for the Regulation of Whaling, Washington, 1946. The Act requires the licensing of factories engaged in treating whales, and of ships (and aircraft) used for taking whales. It also provides for the management and conservation of whale stocks.

Administration

Australian fisheries are administered by the authority having jurisdiction over the waters concerned. In inland waters and in waters within territorial limits, administration is the responsibility of the State or Territory fisheries authority. In proclaimed waters, and on the continental shelf beyond territorial limits, administration is the responsibility of the Commonwealth Government which, by agreement, has delegated to State fisheries authorities the necessary authorities for day-today administration of the Acts.

The administration of the fisheries is directed to a number of objectives of which the two most important are conservation of the living resources in order to ensure their ability to sustain a maximum yield consistent with economy in their exploitation, and the orderly conduct of the fishing industry. Fishery resources are common property and, apart from fisheries such as those for rock lobster, abalone, southern bluefin tuna and prawns in northern Australia where the numbers of boats are controlled, and in the rock lobster fisheries where the quantities of fishing gear are controlled, the only other restrictions on the entry of boats into the Australian fishing industry are those relating to foreigners and to processing boats in the northern prawn fishery. Management measures have been introduced in several fisheries to provide controls such as minimum sizes, closed areas, closed seasons and regulation of the types of fishing gear that may be used.

The Fisheries Development Trust Account (established under the *Fishing Industry Act* 1956) and the Fishing Industry Research Trust Account (established under the *Fishing Industry Research Act* 1969) are available to support financially projects for the development and management of the fisheries and fishing industry which are consistent with the purposes of those Acts. The former was established with the proceeds of the sale of the assets of the Australian Whaling Commission and was replenished from Consolidated Revenue in 1976/77. The latter is a matching fund into which is paid each year an appropriation from Commonwealth Government Revenue equal to amounts collected from the fishing industry by the State Fisheries Authorities and expended by the States for the same purposes.

Research

The main aim of fisheries research in Australia is to provide a background of biological, technical and economic information which will provide guidance for the efficient and rational utilisation of fisheries resources. To this end much of the research already undertaken has been directed at formulating recommendations for management of various fisheries. Research work is also carried out which is expected to lead to the development of new fisheries, the expansion of under-exploited fisheries, greater economy in operations and the use of more efficient equipment and methods.

Organisations in Australia at present engaged in research into fisheries matters are:

(i) CSIRO Division of Fisheries and Oceanography, which has its headquarters and main laboratory at Cronulla, N.S.W. and regional laboratories in Perth and Brisbane (fisheries science and oceanography);

(ii) CSIRO Division of Food Research, which has its main laboratories located at Ryde, N.S.W. (handling, storage, processing and transportation of fish);

(iii) State fisheries departments (fisheries laboratories have been established in Perth, Hobart, Melbourne, Sydney, Brisbane and Cairns; research vessels are operated by New South Wales, Victoria, Western Australia, Tasmania and South Australia; and the Department of the Northern Territory has a small scientific section at Darwin);

(iv) Fisheries Division, Department of Primary Industry, Canberra (economic and management research, gear technology, extension and education service); and

(v) private fishing companies (surveys of fisheries resources, research into handling and processing).

Boats and equipment used in fisheries

Fish, crustaceans and molluscs (edible)

The boats used for the estuarine fisheries are mostly small vessels propelled by diesel or petrol engines of low power. The offshore vessels range up to 40 metres in length and are almost invariably powered by diesel engines. Most of them have either insulated holds and carry ice, or are equipped with dry or brine refrigeration. Some rock lobster vessels are fitted with wells in which the catch is kept alive.

The following are the types of equipment most commonly used in the main fisheries: *mullet*, beach seine, gill net; *shark* (edible), long-lines, gill net; *Australian salmon*, beach seine; *snoek*, trolling lines; *flathead*, Danish seine, otter trawl; *snapper*, long-lines, traps, gill net, hand-line; *morwong*, Danish seine, otter trawl, traps; *whiting*, handlines, Danish seine, beach seine, gill net; *garfish*, beach seine; *mackerel*, trolling lines; *tuna*, pole and live-bait, purse seine, trolling lines (lampara nets and purse seines are used for taking live bait for tuna); *prawns*, otter trawl, beam trawl, beach seine net; *rock lobster*, pots, traps; *scallops*, dredge, otter trawl; *abalone*, diving using hookah gear; and *pilchards*, *anchovies*, *jack mackerel* and *striped tuna*, purse seine.

Pearls, pearl-shell and trochus-shell

Ketch-rigged luggers about 15 metres long which carry crews of eight to fourteen members are used for pearl-shell fishing in northern Australia.

Whaling

The whaling industry is highly mechanised. Standard equipment includes aircraft to locate whales, diesel-powered catchers of about 30 to 40 metres in length, and tow boats.

Boats and equipment employed by industry

The following table shows details of boats and equipment engaged in the taking of fish, crustaceans and edible molluscs, and pearl-shell and trochus-shell; and the number of chasers and stations engaged in whaling operations. Boats engaged in more than one industry are classified to their main activity.

FISHERIES: BOATS AND EQUIPMENT

		1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
General fisheries—						
Boats	No.	9,591	10,760	10,532	9,830	9,110
Value of boats and equipment	$'000	(*a*)80,097	114,188	141,819	191,482	225,901
Edible oyster fisheries—						
Boats	No.	(*c*)1,884	(*c*)1,710	(*b*)1,899	(*c*)1,818	(*c*)1,926
Value of boats and equipment(*c*)	$'000	2,843	3,734	4,133	4,476	5,607
Pearl-shell and trochus-shell—						
Boats(*d*)	No.	23	17	21	20	15
Whaling(*d*)—						
Chasers	No.	3	3	3	3	3
Stations operating	,,	1	1	1	1	1

(*a*) Incomplete; excludes South Australia. (*b*) Incomplete; excludes Tasmania. (*c*) Incomplete; excludes Queensland and Tasmania. (*d*) *Source:* Commonwealth Department of Primary Industry.

Employment in fisheries

Classification of registered commercial fishermen by industry

The following table has been derived mainly from the licensing records of the various State fisheries authorities. Persons engaged in more than one industry are classified according to their main activity, and so may be classified differently from one year to the next.

PERSONS EMPLOYED ON FISHING BOATS

Industry	*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*
General fisheries(*a*)	17,594	19,208	19,072	18,403	17,037
Edible oyster fisheries	(*c*)1,402	(*c*)1,318	(*b*)1,620	(*c*)1,444	(*c*)1,390
Pearl-shell and trochus-shell(*d*)	287	233	193	242	194
Whaling(*d*)—					
At sea	51	51	56	51	51

(*a*) Figures for general fisheries refer to number of persons (including skippers) reported as usually employed on boats. Persons reported as usually employed on more than one boat for a particular year are counted more than once for that year. Includes the number of licenced commercial fishermen in Western Australia. (*b*) Incomplete; figure for Tasmania is not available. (*c*) Incomplete: excludes Queensland and Tasmania. (*d*) *Source:* Commonwealth Department of Primary Industry.

Production, processing and domestic marketing of fisheries products

Value of fisheries production

The following table shows the gross value and local value of fishing and whaling production by States. Because the value of materials used in the course of production is not available for all States, it is not possible to show a comparison of net values. *Gross value of production* is the value placed on recorded production at the wholesale price realised in the principal markets. In general, the 'principal markets' are the metropolitan markets in each State, although, in cases where commodities are consumed locally or where they become raw material for a secondary industry, these points are presumed to be the principal markets. *Local value* (i.e. gross value of commodities produced at the place of production) is ascertained by deducting marketing costs from the gross value of commodities produced. Marketing costs include freight, cost of containers, commission, and other charges incurred in marketing. Gross and local values of primary commodities produced involve some duplication as they include certain primary commodities which are consumed as raw materials to produce other primary commodities (e.g. hay consumed by livestock).

FISHERIES: GROSS AND LOCAL VALUE OF PRODUCTION
($'000)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
				GROSS VALUE				
1971–72	18,970	9,507	11,382	12,380	30,817	5,929	3,164	92,148
1972–73	21,165	11,471	(*a*)13,375	15,759	28,158	5,739	5,068	(*a*)100,732
1973–74	20,974	10,895	(*b*)15,196	17,442	30,494	7,014	7,295	(*b*)109,310
1974–75	24,609	8,686	(*a*)12,606	(*c*)14,083	35,130	6,928	5,667	(*ac*)107,709
1975–76	31,599	10,601	(*b*)17,137	(*c*)22,474	51,079	8,511	5,188	(*bc*)146,589
				LOCAL VALUE(*d*)				
1971–72	16,323	8,855	10,764	11,027	30,625	5,929	3,164	86,687
1972–73	16,898	10,646	12,686	13,969	28,000	5,739	5,068	93,004
1973–74	16,568	8,682	14,387	15,433	30,313	7,014	7,295	99,692
1974–75	21,569	6,949	11,732	12,496	34,785	6,928	5,667	100,127
1975–76	25,334	8,481	16,152	20,022	50,870	8,511	5,188	134,558

(*a*) Incomplete; excludes oysters in Queensland. (*b*) Incomplete; excludes oysters and rock lobster in Queensland. (*c*) Incomplete; excludes oysters in South Australia. (*d*) Local value is gross value less marketing costs.

Production of selected fisheries

SELECTED FISHERIES PRODUCTS: PRODUCTION AND GROSS VALUE 1975–76

Product		*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
QUANTITY									
Fish(*a*)	tonnes	18,235	7,314	(*b*)5,313	13,128	7,778	2,229	978	54,973
Crustaceans(*a*)	,,	2,806	531	7,086	4,999	13,313	1,229	3,211	33,173
Molluscs (edible)(*a*)	,,	10,744	5,295	(*c*)1,002	(*c*)863	700	3,213	3	(*d*)21,820
Pearl-shell(*e*)	,,	..	..	(*f*)	..	(*f*)	..	(*f*)	(*g*)291.2
GROSS VALUE ($'000)									
Fish		12,417	5,490	(*b*)4,656	7,316	3,633	1,108	929	35,549
Crustaceans		7,600	2,077	11,265	14,202	40,613	3,670	4,258	83,685
Molluscs (edible)		11,582	3,035	(*c*)430	(*c*)956	344	3,733	1	(*d*)20,080
Pearl-shell(*e*)		..	..	(*f*)	..	(*f*)	..	(*f*)	(*g*)260

(*a*) Estimated live weight. (*b*) Excludes freshwater fish, particulars of which are not available. (*c*) Incomplete; exludes oysters. (*d*) Incomplete; *see* individual States. (*e*) *Source:* Commonwealth Department of Primary Industry. (*f*) Not available for publication. (*g*) Excludes manufacturing shell produced from pearl culture operations.

SELECTED FISHERIES PRODUCTS: PRODUCTION, AND GROSS VALUE AUSTRALIA

Product		*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*
QUANTITY						
Fish(*a*)(*b*)	tonnes	57,002	59,263	65,747	57,423	54,973
Crustaceans(*a*)	,,	31,709	(*c*)30,521	(*c*)(*d*)37,318	29,488	33,173
Molluscs (edible)(*a*)	,,	29,479	(*e*)33,089	(*e*)29,362	(*f*)21,386	(*f*)21,618
Pearl-shell(*g*)(*h*)	,,	314.5	223.8	204.9	246.7	291.2
Trochus-shell(*g*)	,,	0.7	1.1	2.5	21.4	..
GROSS VALUE ($'000)						
Fish(*b*)		18,633	23,329	26,334	29,983	35,549
Crustaceans		53,966	(*c*)54,231	(*c*)(*d*)60,809	55,955	83,685
Molluscs (edible)		14,581	(*e*)17,612	(*e*)15,552	(*e*)13,337	20,080
Pearl-shell(*g*)(*h*)		245	203	236	218	260
Trochus-shell(*g*)		..	..	..	8	..

(*a*) Estimated live weight. (*b*) Excludes freshwater fish caught in Queensland. (*c*) Excludes freshwater crayfish and crabs in Victoria. (*d*) Excludes rock lobster in Queensland. (*e*) Incomplete; excludes oysters in Queensland, and includes only abalone and scallops in Victoria. (*f*) Incomplete; excludes oysters in Queensland and South Australia. (*g*) *Source:* Commonwealth Department of Primary Industry. (*h*) Excludes manufacturing shell produced from pearl culture operations.

FISH: PRODUCTION, BY PRINCIPAL TYPES

	Tonnes estimated live weight			*Gross value ($'000)*		
Type	*1973–74*	*1974–75*	*1975–76*	*1973–74*	*1974–75*	*1975–76*
Tuna(*a*)	(*b*)(*c*)9,700	11,082	10,674	(*b*)(*c*)3,608	3,349	3,244
Mackerel	(*b*)(*c*)1,291	1,315	1,289	873	941	1,128
Snoek	(*b*)708	2,005	359	141	452	128
Mullet	(*b*)6,071	5,999	6,255	1,792	2,076	2,791
Bream (including Tarwhine)	(*b*)704	1,112	904	526	749	860
Australian salmon	(*b*)4,513	5,178	3,510	798	1,065	1,020
Ruff	(*b*)1,161	1,019	895	203	154	191
Snapper	(*b*)1,691	2,190	1,842	1,431	2,860	2,669
Morwong	(*b*)1,342	1,415	1,815	605	941	1,416
Whiting	(*b*)1,762	2,268	2,853	(*d*)2,069	(*d*)3,190	(*d*)4,385
Flathead	(*b*)1,645	2,848	2,117	778	1,630	1,584
Shark	(*b*)4,233	4,773	6,320	1,459	2,640	3,820
Leatherjacket	(*b*)1,042	528	413	399	333	261
Other	(*b*)(*c*)19,748	15,690	15,726	(*d*)6,813	(*d*)9,605	(*d*)12,051
Total	**65,747**	**57,423**	**54,973**	**26,334**	**29,983**	**35,549**

(*a*) Includes estimates by CSIRO for New South Wales. (*b*) Incomplete; excludes Victorian figure which is not available for publication. (*c*) Tasmanian figures for tuna and mackerel are not available for publication and have been included in 'Other'. (*d*) Value of whiting in Tasmania is not available for publication and has been included in 'Other'.

Crustaceans

CRUSTACEANS: PRODUCTION, BY TYPE
(tonnes live weight)

Type	*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Murray crayfish	136	(*a*)113	(*a*)295	23	23
Yabbies				161	107
Rock lobster	13,085	13,005	(*b*)11,830	12,265	(*b*)12,865
Bay lobster					
Prawns	17,915	16,757	24,491	16,327	19,478
Crabs	573	(*a*)647	(*a*)702	712	700
Total	**31,709**	(*c*)**30,521**	(*c*)**37,318**	**29,488**	(*c*)**33,173**

(*a*) Excludes Victorian figure, which is not available for publication. (*b*) Excludes rock lobster in Queensland. (*c*) Incomplete; *see* footnotes to figures for individual species.

Molluscs (edible)

MOLLUSCS: PRODUCTION, BY TYPE, AUSTRALIA
(tonnes estimated live weight)

Type	*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Octopus	65	(*a*)40	(*a*)158	20	(*c*)59
Squid	209	(*a*)314		212	253
Cuttlefish	2	(*a*)..	(*a*)1	..	19
Oysters	10,434	(*b*)9,202	(*b*)10,479	(*b*)(*c*)8,908	(*b*)(*c*)10,273
Mussels	577	(*a*)23	(*a*)63	1,019	1,123
Pipi	86	117	203	193	195
Scallops	10,148	16,953	12,425	6,062	4,642
Abalone	7,958	6,439	6,032	4,971	5,256
Total	**29,479**	(*d*)**33,089**	(*d*)**29,362**	(*d*)**21,386**	(*d*)**21,820**

(*a*) Excludes Victorian figure, which is not available for publication. (*b*) Excludes Queensland figure which is not available. (*c*) Excludes South Australia figure, which is not available. (*d*) Incomplete; *see* individual species.

Pearls, pearl-shell and trochus-shell

PEARL CULTURE AND PEARL AND TROCHUS SHELL FISHING OPERATIONS

(*Source: Commonwealth Department of Primary Industry*)

		1971	*1972*	*1973*	*1974*	*1975*
QUANTITY						
Pearl and Trochus shell fishing operations—						
Production of—						
Pearl shell(*b*)	tonne	314.5	223.8	204.9	246.7	291.2
Trochus shell	tonne	0.7	1.1	2.5	21.4	. .
Pearl culture operations—						
Live shell introduced	No.	333,280	432,318	500,651	558,465	578,437
	tonne	107.4	139.6	202.1	249.3	201.2
Production—						
Round and baroque pearls	No.	107,777	133,442	102,033	86,757	57,638
	momme(*c*)	62,179	74,727	57,138	63,722	42,334
Half pearls	No.	413,964	159,113	215,288	224,966	229,655
Manufacturing shell	tonne	164.3	103.0	87.6	66.1	105.2
VALUE ($'000)						
Pearl and Trochus shell fishing operations-						
Production of—						
Pearl shell		245	203	236	218	260
Trochus shell		. .	. .	. .	8	. .
Pearl culture operations—						
Production of—						
Round and baroque pearls		3,165	3,861	4,781	6,140	4,431
Half pearls		366	251	423	457	392
Manufacturing shell		89	59	44	24	49

(*a*) Figures refer to the year ended January for the Northern Territory and Queensland and to the year ended December for Western Australia. (*b*) Excludes manufacturing shell produced from pearl culture operations. (*c*) A momme is a pearl weight measurement equivalent to 3.769 grams.

Processing of fish, crustaceans and molluscs

Processing plants are located strategically throughout Australia close to fishing grounds. In recent years a number of shore-based plants have been established in remote areas of northern Australia to service the expansion of the prawn fishery.

Rock lobsters, prawns, abalone and scallops are frozen for export; tuna, snoek, Australian salmon and abalone are canned; small amounts of fish are smoked; and some molluscs are bottled. Hand labour is still used extensively in processing operations, but mechanisation is being progressively introduced.

Ice is used extensively for the chilling of fish taken in estuarine and inshore fisheries. Refrigeration is used particularly on vessels operating in the tuna fishery and prawn fisheries to chill or freeze the catch.

Fish, crustaceans and molluscs intended for export are processed in establishments registered under the Export (Fish) Regulations. Edible fish for local consumption is mainly dispatched fresh-iced to markets.

Whale processing

WHALING

(*Source:* Commonwealth Department of Primary Industry)

		1972	*1973*	*1974*	*1975*	*1976*
Whales taken (*a*)—						
Male	No.	792	684	729	692	650
Females	"	161	287	450	480	345
Total	"	**953**	**971**	**1,079**	**1,172**	**995**
Quantity of sperm whale oil produced	barrels	34,632	32,952	34,956	34,610	35,190
Value of whale oil produced	$'000	993	951	1,261	1,218	2,240
Value of by-products (meal, meat, solubles, etc.)	"	585	624	795	631	751
Total value of products	"	**1,578**	**1,575**	**2,056**	**1,849**	**2,991**

(*a*) Sperm whales only were taken. (*b*) 6 barrels = approximately 1.016 tonnes.

Oil from sperm whales is used in the manufacture of soap, plastics and watch lubricants, and in automatic transmission systems in motor cars.

Domestic marketing of fisheries products

Although virtually the whole of the tuna and Australian salmon catches are canned, the greater part of Australian fish production is marketed fresh or frozen.

Marketing arrangements for fresh fish vary. In New South Wales, fish marketing is the responsibility of the Fish Marketing Authority which operates the Metropolitan and Wollongong Fish Markets. In other coastal centres of New South Wales, fishermen's co-operatives may become registered as local fish markets. In Queensland, the Fish Board sells all production on behalf of fishermen in that State, except fish intended for export and interstate trade. In Victoria, South Australia, Western Australia and Tasmania, there is no restriction on market outlets. In Victoria, South Australia and Western Australia, most fish is sent to metropolitan wholesale fish markets for auctioning; small quantities are processed for sale locally, chiefly by co-operatives. Nearly all fresh fish in Tasmania is consigned direct to processors. The principal outlets for fish products in Australia are retail and catering establishments.

Consumption of edible fisheries products

Particulars of the apparent consumption of fish, crustaceans and molluscs per head of population, in terms of edible weight, are included in the following table. For the purpose of compiling this table, an allowance has been made for the non-commercial fish catch.

FISHERIES PRODUCTS: APPARENT CONSUMPTION

(Kg edible weight per person per annum)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Fresh or frozen—					
Fish—					
Australian origin(*a*)	1.7	1.7	2.0	1.2	1.8
Imported	1.5	1.5	1.8	1.6	1.7
Crustaceans and molluscs	0.9	0.8	1.2	0.6	1.0
Cured (including smoked and salted)	0.5	0.8	0.9	0.7	0.8
Canned—					
Australian origin(*a*)	0.5	0.3	0.6	0.7	0.7
Imported	0.9	0.9	1.2	1.1	0.6
Total	6.0	6.1	7.8	6.1	6.7

(*a*) Estimates have been calculated by subtracting export figures from production figures. In the case of fresh or frozen fish, an allowance of 10 per cent has been added to the commercial production figure to allow for non-commercial catch.

Overseas trade in fisheries products

Edible fisheries products

OVERSEAS TRADE IN EDIBLE FISHERIES PRODUCTS

	Quantity (tonnes)			*Value ($'000 f.o.b.)*		
	1973–74	*1974–75*	*1975–76*	*1973–74*	*1974–75*	*1975–76*
IMPORTS						
Fresh, chilled, frozen or boiled(*a*)	23,135	20,346	21,903	19,009	17,336	26,412
Smoked, dried, salted or in brine	4,694	3,739	3,643	4,747	4,281	4,929
Potted or concentrated	154	150	142	329	395	390
Canned—						
Herrings	2,047	1,684	1,210	1,668	1,873	1,428
Salmon	6,901	3,657	3,279	16,884	9,724	7,726
Sardines, sild, brisling, etc.	3,023	3,175	3,070	3,911	5,024	4,550
Tuna	538	2,355	213	723	3,418	343
Other fish	3,448	3,874	1,167	2,868	3,649	1,687
Crustaceans and molluscs	1,715	1,561	1,429	3,607	2,881	3,153
Total canned	*17,672*	*16,306*	*10,368*	*29,661*	*26,569*	*18,887*
Other prepared or preserved fish, crustaceans and molluscs(*b*)	9,965	8,936	11,002	14,201	13,156	18,887
Grand total	..	..	..	**67,947**	**61,737**	**68,720**
EXPORTS (Australian produce only; excludes re-exports)						
Fresh, chilled or frozen(*c*)—						
Fish	2,805	1,378	1,487	1,628	1,103	1,191
Crustaceans and molluscs—						
Rock lobster tails	3,749	4,247	4,018	25,706	32,430	35,782
Prawns	6,719	7,165	5,654	23,904	24,394	29,601
Other(*d*)	3,026	1,473	1,668	8,085	4,120	6,091
Crustaceans and molluscs boiled in water	334	378	383	1,194	1,161	1,767
Prepared and preserved—						
Fish	215	158	385	380	268	380
Crustaceans and molluscs	1,787	1,564	1,426	5,170	5,071	5,576
Grand total	..	..	..	**66,067**	**68,547**	**80,388**

(*a*) Excludes frozen smoked, which is included in item 'Smoked, dried, etc.' (*b*) 1974–75 figures for this category are not comparable with those for previous years as the item 'prawn crackers' is no longer available separately and has been excluded. (*c*) Excludes frozen smoked, which is included in item 'Prepared and preserved crustaceans and molluscs'. (*d*) Total values for this item for 1973–74, 1974–75 and 1975–76 include values of $232,000, $215,000 and $151,000 respectively, for which no quantities have been included.

Non-edible fisheries products

OVERSEAS TRADE IN SELECTED NON-EDIBLE FISHERIES PRODUCTS

		Quantity			*Value ($'000 f.o.b.)*		
		1973–74	*1974–75*	*1975–76*	*1973–74*	*1974–75*	*1975–76*
IMPORTS							
Fish heads, fresh or frozen	tonnes	883	576	766	128	95	133
Other fish waste . .	,,	1,978	3,484	1,434	185	128	144
Fish, live(*a*) . . .	'000	8,315	10,856	12,148	688	1,029	1,187
Fish meal . . .	tonnes	13,873	23,516	12,947	4,769	7,064	2,688
Whale oil . . .	'000 litres	144	81	32	44	40	21
Cod-liver oil . . .	,,	324	200	288	123	112	191
Other oils (including seal oil)	,,	1,043	985	549	218	382	436
Coral and shells and their waste . . .	tonnes	75	77	93	56	82	120
Tortoise shell (including turtle shell, claws, waste)	,,	2	. .	1	57	5	12
Pearls		. .	. .	. .	232	204	238
Total . . .		. .	. .	. .	**6,500**	**9,141**	**5,170**
EXPORTS (Australian produce only; excludes re-exports)							
Australian produce—							
Whale oil . . .	'000 litres	8,494	4,184	8,134	1,088	713	1,354
Other oils . . .	,,	7	97	20	8	30	77
Pearl-shell . . .	tonnes	455	400	306	489	471	107
Other shell (including trochus) . . .	,,	297	417	443	115	168	279
Natural pearls . .		. .	. .	. .	3	6	11
Cultured pearls—							
Round . . .	No.	49,772	58,302	111,806	656	1,196	330
Half round . .	,,	279,474	209,824	179,080	521	324	751
Other . . .		. .	. .	. .	20	40	11
Total . . .		. .	. .	. .	**2,900**	**2,948**	**2,920**

(*a*) Live fish whether or not fit for human consumption.

Further information on subjects relating to fisheries is contained in the annual statistical bulletins *Fisheries* (7602.0 and 7603.0).

CHAPTER 15

WATER RESOURCES, SEWERAGE AND DRAINAGE

WATER RESOURCES

Official Year Book No. 51, pages 228–31, contains a description of recent developments in the measurement of Australia's water resources. For information concerning general, descriptive and historical matter *see also* Year Book No. 37, pages 1096–1141.

An article on droughts in Australia appeared in Year Book No. 54, pages 991–6.

For further details on geographical and climatic features determining the Australian water pattern, *see* the chapter Climate of Australia; and on the generation of hydro-electric power, *see* the chapter Electric Power, in this issue.

Water resources and their management

Geographic background

General. Water resources are determined by rainfall, evaporation and physical features including soil, vegetation and geology. Chapter 2, Climate of Australia, contains a detailed description of the climatic features of the country. A brief description of the landforms appears in Year Book No. 61, pages 25–27. In assessing Australia's water resources, dependability and quality of supply must be considered, as well as amount.

Topography. The major topographical feature affecting the rainfall and drainage patterns in Australia is the absence of high mountain barriers; features range from sloping tablelands and uplands along the east coast Main Divide through the low plain and marked depression in the interior to the Great Western Plateau.

Drainage. Only one-third of the Australian land mass drains directly to the ocean, mainly on the coastal side of the Main Divide and inland with the Murray-Darling system. With the exception of the latter, most rivers draining to the ocean are comparatively short and account for the majority of the country's average annual discharge.

The interior lowlands exhibit endoreic drainage patterns and surface drainage is totally absent from some arid areas of low relief.

Climate. Australia's large area (7.7 million square kilometres) and latitudinal range (3,700 kilometres) have resulted in climatic conditions ranging from the alpine to the tropical. Two-thirds of the continent is arid or semi-arid, although good rainfalls (over 800 mm annually) occur in the northern monsoonal belt under the influence of the Australian-Asian monsoon and along the eastern and southern highland regions under the influence of the great atmospheric depressions of the Southern Ocean. The effectiveness of the rainfall is greatly reduced by marked alternation of wet and dry seasons, unreliability from year to year, high temperatures and high potential evaporation.

Settlement. The availability of water resources controls, to a large degree, the possibility and density of settlement; these, in turn, influence the quality of the water through production and disposal of waste. Most early settlements were established on the basis of reliable surface water supplies and, as a result, Australia's population is concentrated along the coast, mainly in the comparatively fertile, well-watered east, south-east and far south-west.

As settlement spread into the dry inland grazing country, the value of reliable supplies of underground water was realised. Observations of the disappearance of large quantities of the rainfall precipitated on the coastal ranges of eastern Australia eventually led to the discovery of the Great Artesian Basin which has become a major asset to the pastoral industry.

For further information on the influence of water resources on the spread of settlement in Australia *see* Year Book No. 61, page 860.

Surface supplies

Distribution and volume. As described above, permanent rivers and streams flow in only a small part of the continent. The average annual discharge of Australian rivers has been assessed at 343×10^9 cubic metres, of which 157×10^9 cubic metres is measured discharge and the remainder is estimated. This is small in comparison with river flows on other continents. In addition, there is a pronounced concentration of runoff in the summer months in northern Australia while the southern part of the continent has a distinct, if somewhat less marked, winter maximum.

Variability of flow. Even in areas of high rainfall, large variability in flow means that, for local regional development, most streams must be regulated by surface storage. However, in many areas evaporation is so great that storage costs are high in terms of yield. Extreme floods also add greatly to the cost of water storage, because of the need for adequate spillway capacity.

Potential development. Over 80 per cent of all water used in Australia is surface water. This quantity is about 14×10^9 cubic metres a year and represents about 11 per cent of the possible usable surface water available in Australia; it does not include the amount diverted for hydro-electric power generation and other purposes which does not affect the quantity of water available. However, the great variability of river discharge, high evaporation and lack of sites for storage on many catchments limit potential development. As an indication of the severity of the problem, Australia's runoff is estimated at 13 per cent of rainfall compared with 40 per cent in North America and Europe, 36 per cent in South America and Asia and 24 per cent in Africa, with the complementary figure representing the evaporation and transpiration percentage. There is, however, considerable scope for greater efficiency in water use.

Groundwater supplies

Groundwater is more important than surface water in about 60 per cent of the country. Australia's estimated annual groundwater recharge is 72×10^9 cubic metres, and annual groundwater usage is estimated at nearly 3×10^9 cubic metres or about 18 per cent of Australia's total water usage.

An indication of the variability in quality and quantity of Australia's groundwater resources is given in the map sheets accompanying the Australian Water Resources Council's publication, *Groundwater Resources of Australia* (*1975*).

Groundwater is divided according to its occurrence in the three main classes of aquifer:

(i) *Shallow unconsolidated sediments* comprise alluvial sediments in river valleys, deltas and basins; aeolian (windblown) sediments which generally occur in coastal areas; and lacustrine (lake) sediments. These sediments are often highly permeable and porous. Permeability and porosity may vary markedly according to orientation. Unconsolidated aquifers of this group generally occur at depths of less than 150 m and are often readily accessible to sources of water for recharge. Marked seasonal variations in water level are common.

(ii) *Sedimentary rocks* are generally made up of consolidated sediments. The aquifers owe their porosity to small voids between the grains which are often well compacted and cemented. They often cover significant areas, being continuous and of appreciable thickness. Rock strata usually dip quite gently. Nevertheless, over the full extent of the larger sedimentary basins, aquifers may reach great depths. Areas where recharge takes place may be small in relation to the extent of the aquifers. Water quality in individual aquifers may be quite good and fairly uniform over large areas. Some sediments contain a number of permeable and impermeable layers, creating a vertical sequence of separate aquifers, and water quality may vary greatly between them.

(iii) *Fractured rocks* comprise hard igneous and metamorphosed rocks which have been subjected to disturbance and deformation. Aquifers resulting from the weathering of any rock type are also included in this group. Water is transmitted mainly through joints, bedding planes, faults, caverns, solution cavities and other spaces in the rock mass.

The quality of groundwater varies considerably and sources are subject to pollution in much the same way as surface supplies. Locally, groundwater has also been polluted by poor drilling techniques which allow contamination of fresh or lower salinity waters by more highly saline waters, and also by the discharge of industrial wastes into underground drainage bores. The Port Phillip Basin has the problem of discharge of industrial and domestic waste underground, and in the Western Port Basin there has been control of groundwater withdrawal since 1968 to prevent overdraft and salt-water intrusion.

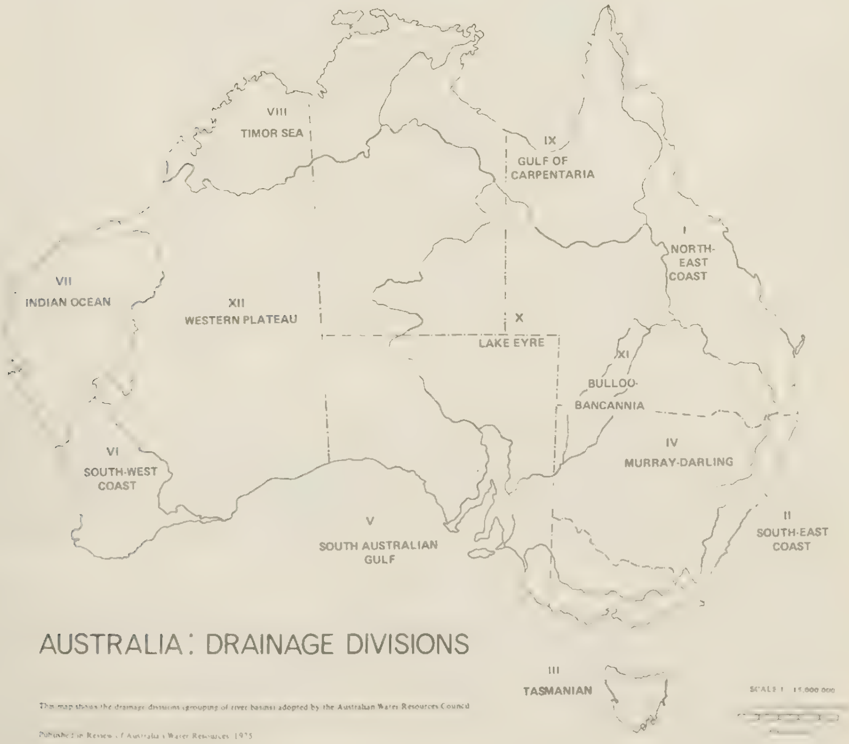
For further details on the sources of groundwater and a table of the principal water-bearing basins in Australia, *see* Year Book No. 61, pages 865–6. A map showing the extent of known artesian basins throughout Australia is shown on page 273 of Year Book No. 48.

Drainage divisions and the conjunctive use of surface and groundwaters

Groundwater and surface water have, in the past, tended to be viewed as separate resources because of their modes of occurrence, assessment and development. They are complementary components of the hydrologic cycle and in any assessment of the water resources of a region are not necessarily additive.

To promote a unified approach, river basins or groups of river basins have been adopted as the primary units of assessment. The *Review of Australia's Water Resources*, 1975 (Department of National Resources, Australian Water Resources Council, A.G.P.S., Canberra) contains a summary of the 244 river basins grouped into twelve divisions, together with a map showing the divisions. (See below.)

The conjunctive approach to water resources, even to importing water from outside the region, generally makes more water available for use than would be the case with independent use of the various sources. Year Book No. 61, pages 867–8 contains details of the conjunctive use of surface and groundwaters.


VIII
TIMOR SEA
IX
GULF OF CARPENTARIA
I
NORTH-EAST COAST
VII
INDIAN OCEAN
XII
WESTERN PLATEAU
X
LAKE EYRE
XI
BULLOO-BANCANNIA
IV
MURRAY-DARLING
VI
SOUTH-WEST COAST
V
SOUTH AUSTRALIAN GULF
II
SOUTH-EAST COAST
III
TASMANIAN
SCALE 1 : 15,000,000

AUSTRALIA: DRAINAGE DIVISIONS

This map shows the drainage divisions (grouping of river basins) adopted by the Australian Water Resources Council

Published in Review of Australia's Water Resources 1975

PLATE 37

In the *Review of Australia's Water Resources*, 1975 an attempt was made to assess the possible exploitable yield of surface water for each river basin (aggregating to Drainage Divisions) at the point of lowest practical downstream development, using the type of hydraulic structure considered technically feasible by the governments. These estimates take into account average annual flow, variability of flow, water quality and the availability of suitable sites for storage, but do not take into account economic factors.

The total annual commitment of surface water is about 30 x 10^9 cubic metres, which represents 24 per cent of the possible exploitable yield but only 8.6 per cent of the total runoff of Australian streams. The reasons for this low overall commitment are:

- economic resources are not fully developed,
- potential developments, while technically feasible, are expensive due to topographic and climatic limitations,
- bulk of surface water resources are remote from centres of population.

Surface water resources are developed for consumptive or non-consumptive uses. Consumptive use refers to domestic, industrial and agricultural uses and involves the removal of water from the stock of usuable resources. The commitments for the table below are mostly for consumptive use in irrigation. Non-consumptive use comprises instream use of water and includes hydro-electric power generation, recreation and transportation.

AN ASSESSMENT OF THE POSSIBLE YIELD OF SURFACE WATER BY DRAINAGE DIVISION

(*Source:* Review of Australia's Water Resources, 1975)

Drainage division	*Adopted drainage area*	*Average annaual discharge (a)*	*Annual commitments(a)*			*Possible exploitable yield*	*Commitments as a per cent age of exploitable yield*	*Estimated total yield of drainage area*	*Possible exploitable yield as per centage of total yield*
			Present	*Authorised and planned*	*Total*				
	mil ha			*mil. cubic metres*				*mil. cu. m.*	
I North-East Coast	45	82,500	2,595	761	3,356	25,566	13	75,620	34
II South-East Coast	27	39,396	2,658	1,287	3,945	(*b*)15,992	24	37,499	43
III Tasmania	7	49,799	1,722	73	1,795	35,495	5	49,799	71
IV Murray-Darling	106	22,261	15,941	793	16,734	18,372	91	22,204	83
V South Australian Gulf	8	980	135	38	173	283	61	913	31
VI South-West Coast	31	7,290	343	27	370	1,841	20	4,935	37
VII Indian Ocean	52	4,160	..	75	75	490	15	3,815	13
VIII Timor Sea	55	74,260	3,083	45	3,128	16,423	19	74,260	22
IX Gulf of Carpentaria	64	58,230	76	86	162	10,094	2	49,180	21
X Lake Eyre	117	3,260	9	..	9	129	7	3,180	4
XI Bulloo-Bancannia	10	540	3	..	3	n.a.	n.a.	540	n.a.
XII Western Plateau	246	..	..	..	..	..	..	..	..
Australia	**768**	**342,676**	**26,565**	**3,185**	**29,750**	**124,685**	**24**	**321,945**	**39**

(*a*) Includes fresh and marginal water but excludes brackish and saline water. (*b*) Includes a small amount of brackish water.

Groundwater is an important substitute for surface water in many parts of the country such as in the arid interior where the Great Artesian Basin provides the only reliable continuous supply of water for stock and domestic purposes. This Basin underlies 23 per cent of the continent and some 30,000 holes have been drilled, about 2,900 of which are still flowing. The high ratio of sodium to calcium and magnesium ions has an adverse effect on soil structure, rendering it impervious and quite unsuitable for irrigation, but its freshness as opposed to the brackish or saline surface water provides watering points for stock and domestic supplies.

Groundwater is increasing in importance as a source of water for irrigation, industry and domestic supply. There are many areas of intensive groundwater development which, although small, accounted for over a third of all groundwater withdrawals in 1975. The areas shown in the table below rely almost exclusively on ground water from unconsolidated sediments.

Increasing use is made of conjunctive schemes, for example, where groundwater supplies are tapped to augment surface water or where, as in the Burdekin Delta, groundwater aquifers are artificially recharged during the summer wet season to enable water to be stored at low cost with negligible evaporation.

AREAS OF CONCENTRATED GROUNDWATER USAGE IN AUSTRALIA

(*Source:* Review of Australia's Water Resources, 1975)

Area	*Quantity*	*Use*
	mil. cu m/year	
Burdekin Delta (Queensland)	320	Irrigation of sugar cane
Namoi Valley (New South Wales)	108	Irrigation of small crops, including cotton
Condamine Valley (Queensland)	100	Irrigation of grain crops
Southeastern South Australia(*a*)	98	Irrigation, town supplies and industry
Bundaberg (Queensland)	94	Irrigation of sugar cane, industrial and domestic use
Lockyer Valley (Queensland)	70	Irrigation of small crops and fodder
Perth (Western Australia)	66	Irrigation of market gardens, domestic gardens and urban water supply
Hunter Valley (New South Wales)	53	Irrigation of small crops
Callide Valley (Queensland)	35	Irrigation of fodder and grain crops
Tomago Sands (New South Wales)	31	Urban water supply and industrial use
Pioneer Valley (Queensland)	31	Irrigation of sugar cane and domestic use
North Adelaide Plains (South Australia) (*a*)	21	Irrigation of market gardens
Botany Sands (New South Wales)	20	Industrial use
Sub-total	*1,047*	
Estimated total groundwater usage	3,000	

(*a*) Includes some water from limestone aquifers.

Major dams and reservoirs

A map entitled *Australia—Dams and Storages*, published in 1975 by the Department of Minerals and Energy (now the Department of National Resources), shows the location, height of dam wall, capacity and purpose of Australia's major dams and water storages.

The table below lists major dams and reservoirs by State. It should be noted that the Hume Reservoir lies on the New South Wales-Victoria border.

MAJOR DAMS AND RESERVOIRS IN AUSTRALIA

Name and year of completion	*Location*	*Gross capacity (million cubic metres)(a)*	*Height of wall (metres) (b)*	*Purpose*
		NEW SOUTH WALES		
Eucumbene (1958)	Eucumbene River	4,807	116	Part of Snowy Mountains H/E Scheme
Hume (1936, 1961)	Murray River, near Albury (Victoria)	3,038	51	Irrigation, water supply, H/E
Warragamba (1960)	Warragamba River	2,057	137	Water supply for Sydney, H/E
Menindee Lakes (1960)	Darling River, near Menindee	1,794	18	Conservation, storage for Murray River Agreement
Burrendong (1967)	Macquarie River, near Wellington	1,680	76	Conservation, FC, water supply
Blowering (1968)	Tumut River	1,628	112	H/E, irrigation
Copeton (1976)	Gwydir River	1,364	113	Irrigation
Wyangala (1936, 1971)	Lachlan River	1,218	85	Irrigation, stock, etc.
Burrunjuck (1927, 1956)	Murrumbidgee River	1,026	79	Irrigation, H/E
Talbingo (1971)	Tumut River	921	162	H/E
Jindabyne (1967)	Snowy River	688	72	H/E
Lake Victoria (1928)	Murray River, near S.A. border	680	..	Conserves supplies for S.A.
Keepit (1960)	Namoi River, near Gunnedah	426	55	Conservation, irrigation, H/E
Glenbawn (1958)	Hunter River, near Scone	362	78	Conservation, irrigation, FC
Tantangara (1960)	Murrumbidgee River	254	45	H/E
Avon (1927)	Avon River	214	72	Water supply for Sydney
		VICTORIA		
Dartmouth (1977)	Mitta Mitta River	4,000	180	Irrigation storage, H/E
Eildon (1927, 1955)	Upper Goulburn River	3,392	79	Irrigation, H/E
Waranga (1910)	Near Rushworth (Swamp)	411	12	Irrigation
Mokoan (1971)	Winton Swamp, near Benalla	365	10	Irrigation
Rocklands (1953)	Glenelg River	336	28	Domestic and stock water supply
Eppalock (1964)	Campaspe River	312	45	Irrigation, water supply
Cardinia (1973)	Cardinia Creek, near Emerald	287	79	Water supply for Melbourne
Upper Yarra (1957)	Yarra River	207	89	Water supply for Melbourne
Glenmaggie (1927), 1958)	Macalister River	190	37	Irrigation

For footnotes *see* end of table

MAJOR DAMS AND RESERVOIRS IN AUSTRALIA—*continued*

Name and year of completion	*Location*	*Gross capacity (million cubic metres)(a)*	*Height of wall (metres) (b)*	*Purpose*
		QUEENSLAND		
Fairbairn (1972)	Nogoa River, central Qld	1,440	49	Irrigation
Somerset (1959)	Stanley River	893	50	Water supply for Brisbane, H/E
Monduran (1975)	Kolan River, near Gin Gin	586	52	Irrigation
Ross River (1974)	Near Townsville	417	35	FC, water supply
Tinaroo Falls (1958)	Barron River	407	47	Irrigation, H/E
Glenlyon (1976)	Pike Creek, near Stanthorpe	261	46	Irrigation
Wuruma (1968)	Nogo River, near Eidsvold	194	46	Irrigation
Koombooloomba (1961)	Tully River	180	52	H/E, irrigation
		WESTERN AUSTRALIA		
Lake Argyle (Ord) (1971)	Ord River, near Wyndham	5,720	99	Irrigation, FC, H/E
South Dandalup (1973)	Near Mandurah	208	41	Water supply for Perth
Wellington (1933, 1944, 1960)	Collie River	185	37	Irrigation, water supply
Serpentine (1961)	Serpentine River	178	55	Water supply for Perth
		TASMANIA		
Lakes Gordon and Pedder (1974)—				
Gordon	South West	11,671	140	H/E
Scotts Peak		2,960	43	
Serpentine			38	
Edgar			17	
Miena (1967)	Great Lake	2,390	18	Storage for H/E
Lake St Clair (1938)	Central Plateau	2,000 (est.)	3	Natural storage for H/E
Lake Echo (1956)	Lake Echo	725	19	H/E
Lake King William (Clark) (1949, 1966)	Derwent River	541	73	H/E
Arthur's Lake (1965)	Source of Lake River, near Great Lake	511	17	H/E
Devils Gate (1969)	Forth River, near Devonport	180	84	H/E
Rowallan (1967)	Mersey River	131	43	H/E
		NORTHERN TERRITORY		
Darwin River (1972)	Darwin River	259	31	Water supply for Darwin

(*a*) Includes 'dead water', i.e., water below the operational outlet of the reservoir. (*b*) As a general rule, the figures shown for height of wall refer to the vertical distance measured from the lowest point of the general foundation to the crest of the dam, i.e., the level of the roadway or walkway on the dam.

ABBREVIATIONS: H/E—hydro-electricity, FC—Flood control and/or mitigation.

MAJOR DAMS AND RESERVOIRS UNDER CONSTRUCTION OR PROJECTED

Name	*Location*	*Gross capacity (million cubic metres)(a)*	*Height of wall (metres)(b)*	*Purpose*
UNDER CONSTRUCTION				
Wivenhoe	Brisbane River, near Fernvale, Qld	1,150	58	Water supply, FC, H/E
Thomson	Thomson River, near Erica, Vic.	1,110	160	Water supply, irrigation
Tallowa (Lake Yarrunga)	Confluence of Shoalhaven, Kangaroo Rivers, N.S.W.	135	43	Water supply
Julius	Leichhardt River, near Mount Isa, Qld	123	35	Water supply, mining
Googong	Queanbeyan River, N.S.W.	119	59	Water supply
PROJECTED				
Mackintosh	Mackintosh River, Tullibardine River, near Queenstown, Tas.	922	77 24	H/E
Lower Pieman	Pieman River, near Queenstown, Tas.	641	120	H/E
Split Rock	Manilla River, Namoi Valley, N.S.W.	370	64	Irrigation
Windamere	Cudgegong River, near Mudgee, N.S.W.	353	69	Irrigation
Gunpowder	Gunpowder Creek, near Mount Isa, Qld	141	44	Mining, water supply
Spencer	Denison Creek, near Nebo, Qld	127	24	Mining, water supply
Bastyan (Lake Rosebery)	Pieman River, near Queenstown, Tas.	124	74	H/E

For footnotes and abbreviations *see* previous table.

The following table summarises dams and storages existing and under construction in each drainage division according to purpose, capacity and regulated discharge. Three storages counted as mainly for hydro-electricity in the South-East Coast Division and eight in the Murray-Darling are part of the Snowy Mountains Hydro-electric Scheme which, as a whole, makes a major contribution to irrigation.

LARGE DAMS—NUMBERS EXISTING AND UNDER CONSTRUCTION

(*Source:* Review of Australia's Water Resources, 1975)

		Main purpose					
Drainage division(a)	*Total number*	*Irrigation*	*Hydro-electricity*	*Water supply*	*Flood control, recreation*	*Total capacity*	*Regulated discharge*
						mil. cu. m	*mil. cu. m*
I North-East Coast	33	12	1	20	..	4,100	1,300
II South-East Coast	99	5	5	87	2	10,700	2,700
III Tasmania	43	1	31	11	..	19,500	8,700
IV Murray-Darling	104	34	15	53	2	20,700	10,500
V South Australian Gulf	24	..	..	23	1	240	150
VI South-West Coast	24	8	..	15	1	870	360
VII Indian Ocean	1	..	..	1	..	(*b*)	(*b*)
VIII Timor Sea	8	5	..	3	..	6,100	1,900
IX Gulf of Carpentaria	4	..	..	4	..	140	10
X Lake Eyre	2	1	..	1	..	(*b*)	(*b*)
Australia	**342**	**66**	**52**	**218**	**6**	**62,350**	**25,620**

(*a*) Divisions XI and XII are not represented. (*b*) negligible.

NOTE: 1. Although most dams are used for water supply, the greatest volume of water is reserved for irrigation
2. 'Total capacity' of storages is not the same as 'gross capacity' which includes an estimate for water below the operational outlet of the reservoir.

Water quality

Quality of water may be highly variable over time. Runoff resulting from rainfall may pick up a whole range of contaminants in passing over and through the soil; evaporation results in the concentration of these dissolved solids while, on the other hand, storm waters can dilute the concentration of pollutants. Water quality, while being generally related to the quantity of flow, may vary with the depth and breadth of a body of water.

In the long term, land use changes generally affect the quality of groundwater where runoff enters aquifers. For example, the replacement of deep rooted trees in the south-west of Western Australia by shallow rooted grasses for agriculture has disturbed the natural water and salt balance, increasing stream salinity. About four million hectares of land have been rendered sterile and difficult to till.

Although some Australian rivers are naturally saline, the quality of surface water is generally good. However, most types of water pollution experienced in advanced industrial countries also occur in Australia. The main problems relate to sewage, industrial effluents and increasing salinity caused by agricultural activities. In some parts of Australia untreated or inadequately-treated sewage and trade effluents are discharged into inland and coastal streams used for town water supplies. Mining activities cause pollution by the discharge of ore-processing wastes or mine water into streams or by leaching from waste dumps as in the Molonglo River in New South Wales where zinc is leached from tailings and slime dumps at Captains Flat. Remedial work at Captains Flat is currently being undertaken to prevent further erosion and leaching of the waste dumps, and to minimise the flow of mine water discharging through springs into the Molonglo River.

The increasing salinity of the Murray River in recent years is a source of concern as the river is vital for irrigation and domestic water and provides much of Adelaide's water supply. The problem is the increasing salinity of water discharged from irrigation areas, compounded by concentration through evaporation. This is in addition to the river's quite high natural salt load. As the sedimentary beds of the river basin were laid down under a marine environment, the groundwater is saline and, when drainage does return to the river, it carries large amounts of salt. Salinity levels in the river, however, vary seasonally. During the irrigation season and drought periods and following prolonged floods, the concentration of salts may increase significantly, approaching the salt tolerance limits of many crops. Citrus growers in some areas have had to install under-tree sprinkler systems to prevent defoliation of trees caused by saline water from overhead sprinklers. Present control measures include the provision of evaporation basins for the disposal of highly saline drainage water and the regulation of river flow to control water quality by dilution.

Water quality is an important factor in determining the potential use of a particular water resource. Its management is essentially aimed at maintaining each resource in a condition suitable for the beneficial use or uses considered appropriate by the community.

Water management

Australia's attitudes to water resources management have changed substantially over the last twenty years. Water management is no longer seen just in terms of storing water and regulating streams for consumptive use, but also in terms of conserving unregulated streams in an unmodified landscape for wild life preservation or recreation purposes or for possible social or economic use by future generations. In addition, agricultural, industrial and urban development has led to greater attention being paid to water quality management. Increasingly, these changing attitudes have led to the perception that water and other resources need to be managed as an integral part of national and regional planning in relation to social, ecological and economic goals.

In October 1975, the Australian and State governments adopted a policy setting out the basic principles and goals underlying the approach to the development and management of water resources in Australia. This policy states that the conservation and management of water resources must take place in the broad frame work not only of development and management of resources generally, but also of overall economic, environmental and social planning. A balanced approach to water resources management would include the following desirable goals:

(*a*) the provision of water supplies, adequate in quantity and quality—
    (i) to meet the needs of people throughout Australia;
    (ii) to meet the needs of, or to stimulate, primary and secondary industry in such a way as to be compatible with both projected market outlooks for the commodities concerned, and the resources and characteristics of the region concerned;

(*b*) the development and management of water resources so that, where practicable and desirable, other purposes such as flood mitigation, power generation, recreation and wildlife conservation are achieved in parallel with the purposes referred to above;

(*c*) the development of waste water treatment facilities in conjunction with water supply systems and the encouragement of recycling and re-use where appropriate;

(*d*) the adoption of water pricing policies which enable water needs to be met at a fair and reasonable price, but which provide an incentive to all water users to avoid wasteful and environmentally harmful practices and which encourage the efficient allocation of resources;

(*e*) the continued development of policies and practices, as far as possible consistent throughout Australia, aimed at achieving appropriate water quality objectives and the highest practicable level of pollution abatement;

(*f*) the adoption of the general principle that direct costs, or costs related to loss of amenity attributable to pollution, should be borne by the polluter, and that, although the immediate and full implementation of this principle may not be feasible, it is none-the-less a goal to be pursued;

(*g*) the zoning of flood-prone land with a view to its orderly management;

(*h*) the maintenance of an adequate sample of undisturbed aquatic environments as reference areas and the preservation of appropriate wetlands for the benefit of native wildlife;

(*i*) implementation of a program of public education aimed at ensuring a proper understanding of the factors affecting the development and use of water resources and a sense of responsibility in these matters;

(*j*) the encouragement of an active interest and involvement of the community in the planning and management of water resources.

Australia's water resources are managed by about 800 irrigation authorities, metropolitan water boards, local government councils and private individuals. State authorities dominate the assessment and control of water resources as, under the Commonwealth Constitution, primary responsibility for management of water rests with the individual State governments. The Commonwealth Government is responsible for matters relating to its Territories, and participates indirectly through financial assistance or directly in the co-ordination or operation of interstate projects through bodies such as the River Murray Commission. In other instances where political boundaries intersect some river basins, co-operation between governments has been necessary to develop resources.

The maintenance of both quantity and quality of water and the ecological balance of the environment in general are essential to the proper management of water resources. Misuse of water results in erosion, flooding, siltation and pollution and, conversely, poor land management practices can interfere with catchment efficiency through overstocking, bushfires and the destruction of vegetation cover. All States and the Commonwealth Government have initiated forestry policies which provide for reafforestation and the preservation of catchments. There is a more unified approach to catchment, water, forestry and land use factors, which are now regarded as part of a single problem.

Research and continuing assessment of water resources

Australian Water Resources Council

A widening awareness of the need for a co-ordinated Australian approach to water utilisation led to the formation in 1962 of the Australian Water Resources Council by joint action of the Commonwealth and State governments. The Council comprises the Commonwealth and State Ministers primarily responsible for water resources, with the Commonwealth Minister for National Resources as Chairman, and is serviced by a Standing Committee consisting mainly of the heads of Departments responsible to these Ministers, and by three permanent technical committees with a number of supporting groups.

The primary objective of the council is the provision of a continuing comprehensive assessment of Australia's water resources, and the extension of measurement and research to provide a sound basis for the planning of future development. In terms of its objectives and functions, the council has dealt with a wide range of topics, making recommendations and stimulating action by appropriate bodies.

See Year Book No. 61, page 869 for further details on the work of the AWRC.

Water resources research

Comprehensive programs of research and investigation are being pursued by State water and agricultural authorities, the Commonwealth Scientific and Industrial Research Organization and the Australian Water Resources Council, often in collaboration. Special attention is being given to the following: high water tables due to the application of water; surface accumulation of salt and other soil changes associated with irrigation; methods of applying water efficiently; soil treatments to improve the physical condition of irrigated heavy clay soils; the utilisation of irrigated pasture by stock; and growth problems affecting plants and trees and reduction of salinity in river systems.

See Year Book No. 61, pages 863–4 for additional data on research activities in Australia.

International aspects

International water organisations

Australia liaises with international bodies and United Nations agencies concerned with water resources and participates in their activities in various ways.

Organisation for Economic Co-operation and Development (*OECD*). Australia's membership of the OECD since 1970 has involved participation in the work of the Water Management Group which investigates and rationalises problems which are the subject of international concern, and develops strategies—economic, legal and technical—which might resolve them.

United Nations Educational, Scientific and Cultural Organization (*UNESCO*). The International Hydrological Decade (IHD) (1965 1974) was a period in which participating countries implemented an international program designed to advance the science and practice of hydrology. Following the conclusion of the IHD, an International Hydrology Program (IHP) was commenced and an Australian UNESCO Committee for the IHP (AUCIHP) was formed to co-ordinate Australian input to the IHP.

World Meteorological Organization (*WMO*). A Commission on Hydrology has recently strengthened its role in operational hydrology. There is an advisory Committee on Operational Hydrology on which Australia and the Philippines are represented on behalf of the WMO Regional Association V (S.E. Asia). In Australia, hydrological activities and meteorological activities relative to water resources are co-ordinated by the Australian Water Resources Council.

Economic and Social Commission for Asia and the Pacific (*ESCAP*). This Commission, through its Committee on Natural Resources, reports on water policy issues in addition to other activities. By participation in this conference and in seminars arranged on selected topics, Australia contributes to, and benefits from, identification of the main problems of water resources management in a densely populated, developing region.

United Nations Environment Program (*UNEP*). Australia participates in a world registry of major rivers covering discharge and pollutants and of clean rivers so defined and in the development of methodology for analysis and planning of water resources management.

International Commission on Irrigation and Drainage (*ICID*). Set up in India in 1950, this Commission promotes the development and application of the science and technique of irrigation, drainage and flood control in their engineering, economic and social aspects. Australia has been a member of ICID since 1952.

United Nations World Water Conference. A Water Conference, addressed to policy-making, was held in Argentina in March 1977.

The AWRC and AUCIHP function as the Australian National Committee.

National, interstate and State/Territory aspects

In the section on *Water Management* above, reference was made to the responsibilities of government on the national, State and local authority levels. In this section, some additional details are provided on their roles in the management of water resources.

The Murray-Darling Drainage Division's surface water resources are the most highly developed in Australia, with 91 per cent of the possible exploitable yield currently committed for use. The Division contains the continent's largest river system which can be divided into three main groups of rivers:

(*a*) the Darling River and its tributaries;
(*b*) the Murrumbidgee River and its tributaries; and
(*c*) the Murray River and its tributaries upstream from the confluence of the Murrumbidgee and the Murray.

The river basins that comprise the area under the control of the River Murray Commission are the nine basins in group (*c*) above and the three basins adjacent to the lower reaches of the Murray.

River Murray Commission

The Commission was established in 1915 to regulate the river for the three States concerned—New South Wales, Victoria and South Australia. Year Books prior to No. 39 contain brief summaries of the historical events leading to the Agreement of 1915 which provided for a minimum quantity of water to pass to South Australia. Further details on the River Murray Waters Agreement and subsequent amendments may be found in Year Book No. 61, pages 870–2.

Until the completion of the Dartmouth Dam—Australia's highest—in 1977, the key storage regulating the flow of the river was the Hume Reservoir. A series of regulating weirs to feed irrigation areas in New South Wales and Victoria also reduced losses from the river. An amendment to the Agreement to provide for the construction of a large storage at Chowilla was ratified in 1964, but for various reasons, including costs and water quality in the Lower Murray, this was deferred. An investigation of alternative sites led eventually to the completion of the Dartmouth Dam, constructed for the Commission by the State Rivers and Water Supply Commission of Victoria and funded by the four governments. The Dartmouth Dam will complement the Hume Reservoir to increase the total supply. When it is filled, the minimum share of water for South Australia will be increased.

New South Wales–Queensland Border Rivers Agreement

This agreement came into effect in July 1947 and provided for the construction of a dam and several weirs on the rivers that constitute part of the boundary between the two States. Unfavourable foundation conditions were encountered at several dam sites before a suitable site for the Glenlyon Dam on Pike Creek was eventually found. The dam was completed by 1977. The two States also considered proposals for the Balonne-Culgoa River system and by 1974 four regulating structures had been completed.

Snowy Mountains Hydro-electric Scheme

This scheme was set up in 1949 by the *Snowy Mountains Hydro-electric Power Act*. Its prime purpose was to generate large quantities of peak load power and, by diverting the southern-flowing Snowy River through trans-mountain tunnels, to augment the flow of the Murray and Murrumbidgee Rivers to permit continuing expansion of irrigation in the fertile river plains. All storage works are now completed.

Details of the diversions and associated power works, together with details of construction, are given in Chapter 18, Electric Power.

States and Territories

The foregoing text deals with water conservation and irrigation in Australia generally and with international, national and interstate aspects. The following survey covers the local pattern of water resources and the steps taken by the State Governments to bring about their development. In the various States, water policies tend to assume a distinctive and characteristic pattern closely allied with climatic conditions and specific local needs.

In Victoria, almost every form of water scheme is in operation. In New South Wales, major emphasis at present is on irrigation and stock development in the dry areas along the Murray and Murrumbidgee Rivers, though a substantial scheme of intensive irrigation is being conducted in the Murrumbidgee Irrigation Area. In Queensland, up to the present, the predominant emphasis has fallen on water (mainly underground sources) for stock and the development of small irrigation schemes in sub-humid and humid areas, principally to stabilise production of such crops as tobacco, sugar, cotton and pastures. Apart from regular irrigation practices along the Murray River, South Australian authorities are vitally concerned with reticulated supplies for rural areas and towns. Western Australia has developed unique rock catchments and piped supplies for agricultural areas and towns in dry districts. Tasmanian interest relates almost exclusively to hydro-electric generation. The Northern Territory is concerned primarily with water supplies for population centres and mining and pastoral industries.

New South Wales

Administration

The Water Resources Commission of New South Wales (formerly the Water Conservation and Irrigation Commission) consists of three commissioners appointed by the Governor. The operations of the Commission cover water conservation, control of irrigation areas, the establishment, operation and maintenance of works for domestic and stock water supply, irrigation districts, flood control districts, sub-soil drainage districts, constitution of water trusts, the issue of licences for private irrigation, artesian and shallow boring, assistance under the provisions of the farm water supplies scheme, and river improvement works.

Under the *Water Act*, 1912–1955 the right to the use and flow, and the control of water in all rivers and lakes which flow through, or past, or are situated within, the land of two or more occupiers, is vested in the Commission for the benefit of the Crown. A system of licences operates for the protection of private works of water conservation, irrigation, water supply, drainage and prevention of inundation.

For particulars of the New South Wales-Queensland Border Rivers Agreement ratified by Acts of both States in 1947, *see* page 375 of this chapter.

Schemes summarised

The bulk of irrigated land is along the Murray and its tributary, the Murrumbidgee. Smaller areas are served by the Wyangala Dam, Lake Cargelligo and Lake Brewster on the Lachlan (a tributary of the Murrumbidgee), by Glenbawn Dam on the Hunter River, by Keepit Dam on the Namoi River, by Burrendong Dam on the Macquarie River, by the Menindee Lakes Storage on the Darling River and by Copeton Dam on the Gwydir River. None of the other rivers is regulated by large head storages, though weirs and dams have been provided for town supplies, etc. in many places. In addition, substantial use is made of artesian and sub-artesian water in pastoral areas.

New South Wales legislation provides for the constitution and control of various schemes having different characteristics and including irrigation areas, irrigation districts, water trust districts, flood control and irrigation districts, and river improvement districts. There are nine irrigation areas, although two of these, Yanco and Mirrool, are generally described under the one heading, namely, the Murrumbidgee Irrigation Area. Others are: Coomealla, Curlwaa, Hay, Tullakool, Buronga, Mallee Cliffs and Coleambally.

A detailed description of the Murrumbidgee Irrigation Area is contained in Year Book No. 61, pages 875–7. The Water Resources Commission controls land transactions and water supplies for the MIA, but has no jurisdiction over land transactions in neighbouring irrigation districts (although it is responsible for the operation and maintenance of the water supply in these areas). The other irrigation areas follow the same administrative pattern as the MIA.

Irrigation districts are set up under the *Water Act*, 1912–1955 for (*a*) domestic and stock water supply and (*b*) irrigation. The essential difference between an 'Area' and a 'District' is that, in the case of the former, all the land to be included in the area is acquired by the Crown and then subdivided into such number of separate holdings as may be determined. Within the District, however, existing ownership of land is not disturbed other than to acquire land required for water distribution works. Since the completion of the Hume Reservoir, several such districts have been established along the Murray to utilise the New South Wales share of the storage. The schemes are based on 'extensive' irrigation, that is, water rights are allotted to holdings on the basis that only a portion of each holding will be irrigated, but additional water, when available, may be obtained by landholders. 'Water right' is the annual quantity that will cover 1 hectare to a depth of 100 mm.

The *Irrigation Act*, 1912–1966 provides for the constitution of Trust Districts for domestic and stock water and irrigation, and empowers the Commission to construct, acquire or utilise necessary works. When the works are completed, they are handed over to trustees to administer. The trustees are elected by the occupiers of the land and act with a representative of the Commission. They are empowered to levy and collect rates covering the cost of the works repayable to the Crown by instalments and also the cost of operation and maintenance of the works. The rates are struck according to the area of land which benefits.

Irrigation Trusts are established under the same Act and are administered by trustees in a similar way. There are seven of these trusts.

The Lowbidgee Provisional Flood Control and Irrigation District, the first of its kind, was constituted in 1945. Its purpose is to provide flood irrigation for pasture lands on the lower Murrumbidgee by water diverted from the Maude and Redbank Weirs. Another district, Medgun, near Moree in the north-west, is also in operation.

Future program

The program of development in hand includes the provision of additional dams, storages, weirs, flood mitigation and drainage schemes and stream clearing works. Copeton Dam on the Gwydir River was completed in 1976 and Brogo Dam on the Brogo River, Chaffey Dam on the Peel River, Windamere Dam on the Cudgegong River, Cudal Dam on Boree Creek and Split Rock Dam on the Manilla River have either been commenced or authorised for early construction. An ongoing program of investigations is being carried out to identify desirable additional projects which should be considered for implementation as funds become available. Increasing attention is being given to efficiency of water use and to economic, social and environmental factors in water management policies.

Victoria

Administration

Victorian Governments have been active in the development of country water supplies since the 1860's when major works to supply the Bendigo goldfields were undertaken. Local trusts to construct and operate waterworks under Government supervision were provided for in the *Water Conservation Act* 1881. Development under the trust system was greatly stimulated by the *Irrigation Act* 1886, which provided for the construction of national headworks by the State, and vested in the Crown the right to the use and control of all surface waters. By 1900 there were 33 irrigation trusts and 18 other rural water supply trusts, but the system of local control was then breaking down under financial difficulties.

The *Water Act* 1905 established the State Rivers and Water Supply Commission to take over the Irrigation Trust districts (except the still-existing First Mildura Irrigation Trust) and to exercise the State's functions in the further control and development of surface waters outside the metropolis. The Commission now supervises all private diversions from streams and directly administers irrigation districts, rural waterworks and urban districts, flood protection districts and urban water supplies. It also supervises the activities of local urban water supply authorities, and local sewerage, river improvement and drainage authorities.

Works summarised

The State Rivers and Water Supply Commission's storages are augmented by Victoria's half share in River Murray Commission storages. Most of the water is for irrigation. However, about one quarter of irrigation production is from lands irrigated by 'private diverters', i.e., irrigators who are authorised to take water from streams, lakes, etc., but who do not come within the boundaries of an irrigation district.

Storages

The principal irrigation systems in Victoria are:

- *Goulburn–Campaspe–Loddon.* The main storage is Lake Eildon with a capacity of 3,392 million cubic metres. The main products in these systems are dairy products, fruit, wool and fat lambs. Annual production of deciduous canning fruits in the eastern part of the system is about two-thirds of Australia's total.
- *Murray River System.* The Murray Valley Irrigation Area and the Torrumbarry Irrigation System are irrigated by water diverted at the Yarrawonga and Torrumbarry Weirs respectively. These areas are devoted mainly to dairying, fat lambs and canning fruit (Murray Valley) and dairying, fat lambs, vineyards, orchards and market gardens (Swan Hill). Downstream from Swan Hill, the Mildura Irrigation Trust and four Commission Districts are supplied by pumping and produce mainly dried vine fruit, citrus fruits, and table and wine grapes.
- *Southern Systems.* The Maffra–Sale–Central Gippsland district, supplied from the Macalister River and regulated by Lake Glenmaggie, is devoted mainly to dairying.
- *Wimmera–Mallee Domestic and Stock Supply System.* Storages in the Grampian Ranges ensure farm water supplies over the riverless pastoral and cereal lands to the Murray. Without this supply, occupation of the region would be extremely hazardous.

Ten Year Program

The Victorian Water Commission's second ten year plan (for the period 1973–83), reflects a changing emphasis towards greater involvement with urban water supply, sewerage, environmental protection and water quality.

Two basic principles were adopted in formulating the program:

(i) that the environmental impact of new projects be taken into account with emphasis on multi-objective planning; and

(ii) that each project should be economically sound and viable.

Major provisions of the 1973-83 program include:

the construction of new water supply trunk mains, reticulated services and water treatment plants at an estimated cost of $112 million (including $46 million for locally administered waterworks trusts);

the sewering of all towns with populations over 200 by the end of 1982 at an estimated cost of $37 million;

the expenditure of $15 million by river improvement, flood protection and drainage trusts to preserve flood waterways, protect valuable marginal land and safeguard the natural environment of streams in their catchment area;

the expenditure of $7.5 million on rural waterworks districts, including the Millewa pipeline scheme (to be completed by 1975) and commencement of the pipelining of the extensive Mallee domestic and stock channel system;

the construction or enlargement of ten major storages at a total cost of $47 million (including Victoria's share of the cost of the Dartmouth Dam project);
the expenditure of $58 million on irrigation and drainage works within existing irrigation districts;
the expenditure of $30 million to reduce water losses and control seepage in irrigation distribution systems;
the provision of adequate drainage systems, including groundwater control in irrigation districts at an estimated cost of $15 million;
the expenditure of $13 million on salinity control works to arrest the deterioration of highly productive irrigated lands and protect the River Murray from saline inflows from Victorian irrigation areas;
the expenditure of $5.5 million as Victoria's share of capital works undertaken by the River Murray Commission (additional to the Dartmouth Dam Project); and
the expansion of Water Commission facilities and resources at an estimated cost of $12 million.

Queensland

Administration

The important primary industries of Queensland are subject to relatively frequent and serious losses by either drought or extensive flooding.

The right to the use and flow and to the control of water in watercourses, lakes, springs and artesian wells is vested in the Crown, and the Commissioner of Irrigation and Water Supply is authorised to take measures to conserve water and provide for its more equal distribution and beneficial use. Under the *Land and Water Resources Development Acts* 1943 to 1946, he is required to (*a*) prepare a complete description of the natural water resources of the State, both surface and underground, (*b*) undertake and carry out a survey of such resources, and (*c*) keep a record of all such natural, surface and underground water resources. As required under the *Water Act* 1926–76, rights to underground and surface water are allocated and their use is controlled by a system of licensing of all artesian bores and sub-artesian bores in areas proclaimed by the Governor in Council and all conservation and use (other than for stock and domestic supplies) of flow in watercourses. The Commission is required to control use to share supplies as equitably as possible in periods of shortage of supply.

The Commissioner is required to prepare a co-ordinated program of work for the conservation, utilisation and distribution of water resources, and to make recommendations to the Government regarding the carrying out of works in this program. He is principally responsible for water conservation and supply works for rural purposes, including irrigation, stock and domestic supply. In planning such storages, economies to all users are accrued by providing, where possible, for dual or multi-purpose use of works for irrigation, rural, urban and industrial uses including power generation and mining purposes.

Summary of schemes

Unlike other States, the greater part of the area irrigated in Queensland is by individual private pumping plants draining supply from streams or underground sources, spread widely through the State, rather than in constituted irrigation areas where supply is provided by channel systems delivering water to farms. Because of the predominance of irrigation by private diversion pumping, most of the storages are used to release water downsteam to maintain supplies for such purposes.

SOURCES OF IRRIGATION WATER, 1975-76

Source of supply	*Area irrigated*	*Percentage of total area irrigated*
	('000 hectares)	
Underground supplies(*a*)	102.7	55
Surface supplies—		
State irrigation schemes	27.8	15
Rivers, creeks, lakes, etc.(*b*)	41.8	23
Farm dams	13.5	7
Total	*83.1*	*45*
Town or country reticulated water supply	0.1	
Total, all sources	**185.9**	**100**

(*a*) Naturally or artifically replenished. (*b*) Includes regulated and unregulated streams.

Irrigation areas

About 15 per cent of the area under irrigation is concentrated in the six established Irrigation Areas constituted under the *Irrigation Act*, 1922–1973, where the supply is generally reticulated by channel systems (by means of gravity or by pumping) from the storage. In addition, some supply is also provided from streams regulated by the storage. A summary is set out below; further details are shown on page 883 of Year Book No. 61.

Irrigation areas	*Comments*
Dawson Valley	Around Theodore on Dawson River; cotton, graincrops and urban usage in Theodore and Moura.
Burdekin River	Complex system of conservation, irrigation, industrial and other uses; sugar cane, rice and seed crops; artificial recharging of underground water supplies from unregulated flows (Burdekin River)
Mareebah-Dimbulah	Hinterland of Cairns; tobacco and urban/hydro-electric uses.
St George	Balonne River; cotton, soya beans and cereals, and urban uses.
Emerald	Joint Federal-State undertaking based on State's largest storage—Fairbairn Dam; industrial and urban use, irrigation.
Bundaberg Scheme	Joint Federal-State undertaking; sugar and urban supplies for Bundaberg.
Eton Scheme	Hinterland of Mackay; sugar cane and water supply in Mackay area.

A number of other schemes have been established under the *Water Act* 1926, where water from storage is released downstream to maintain adequate supplies for pumping under licence to adjacent lands. Details on these and others currently under construction are in Year Book No. 61, pages 883–4.

Rural, stock and domestic supplies

Improvements to stock and domestic water supplies are assisted by Rural Water Supply Schemes and Bore Water Supply Areas (constituted under the *Water Act*). Investigation, design and administration of these schemes are carried out by the Irrigation and Water Supply Commission.

Underground water supplies

The availability of underground water, particularly the Great Artesian Basin, has played a major part in the development of the pastoral industry in Queensland. Underground water is also used extensively for irrigation on individual farms, particularly along the coastal fringe, and for domestic purposes. Over half the area irrigated in Queensland receives its supplies from underground sources. In accordance with the requirements of the *Land and Water Resources Development Acts* 1943 to 1946, the investigation of availability of underground water is being pursued by geological mapping, investigation drilling and hydro-geological assessment. The most important areas where water from this source is used for irrigation are the Burdekin Delta, Condamine Valley, Bundaberg, Lockyer Valley, Callide Valley and Pioneer Valley. The table on page 369 of this chapter provides the quantity and purpose of groundwater usage in these areas.

South Australia

Administration

All major water resources and most public water supply schemes in South Australia are administered by the Engineering and Water Supply Department under the various statutes mentioned below.

- The *Waterworks Act*, 1932–1974, which empowers the Minister of Works to impound or divert the water from any lake, watercourse or underground source for the purpose of establishing and maintaining public water supply schemes to serve proclaimed water districts throughout the State.

- The *Water Conservation Act*, 1936-1972, which relates to the provision of small dams, wells, bores and other waterworks to assist development in the more remote areas of the State or to provide water for travellers and travelling stock in such areas.

- The *River Murray Waters Act*, 1935-1971, which ratifies the River Murray Waters Agreement, and under which the Engineering and Water Supply Department operates and maintains Lake Victoria storage, nine weirs and locks downstream of Wentworth, N.S.W., and barrages at the river mouth.

- The *Water Resources Act*, 1976, which came into force from 1 July, 1976 and superseded the *Control of Waters Act* 1919 and the *Underground Waters Preservation Act* 1969, represents the culmination of the development of the Government's water resources policy involving the management of all aspects of water—surface and underground, quality and quantity. The Act provides for the control or diversion of surface waters from Proclaimed Watercourses and for the control of the wihtdrawal of underground waters from Proclaimed Regions. At the time of commencement of the Act, the River Murray was the only Proclaimed Watercourse, the Proclaimed Regions being the

Northern Adelaide Plains and Padthaway. The legislation provides for control over the construction or modification of most categories of wells over the whole State and for the abatement of pollution of all waters. It establishes a South Australian Water Resources Council and Regional Advisory Committees as vehicles for public involvement in the water resources management process. At the time of commencement of the Act, Regional Committees operated in respect of the River Murray, the Northern Adelaide Plains, Padthaway and the Arid Areas. In addition, the Act provides for a Water Resources Appeal Tribunal to give individuals the opportunity to appeal against decisions of the Minister pursuant to the Act.

Summary of schemes

Australian irrigation originated in the upper Murray in South Australia and the Mildura area of Victoria. South Australian irrigation commenced with an agreement involving the Chaffey brothers in 1887 whereby an area was made available for the establishment of certain irrigation works at Renmark. From this start government, co-operative and private irrigation areas totalling more than 42,000 hectares have been developed in the South Australian section of the Murray Valley. The major authorities controlling River Murray irrigation are the Department of Lands which administers government controlled areas and the Renmark Irrigation Trust (founded on the Chaffey brothers' venture). In the former, land is leasehold; in the latter it is freehold. The principal high land crops comprise citrus and stone fruits, and vines. The reclaimed swamps along the lower section of the Murray are used almost exclusively for pasture and fodder crops. Vegetable crops of various kinds are important in both types of irrigated lands.

Except for quantities held in various lock pools and natural lakes, no water from the Murray is stored within South Australia for irrigation purposes. Usage of the River is therefore planned on the basis of the minimum monthly flows to which South Australia is entitled under the River Murray Waters Agreement. This factor, plus the need to reserve water for city, town and rural water supply systems, has resulted in the expansion of irrigation from the River being rigidly controlled by the Government. In addition to irrigation from the River Murray there are considerable areas irrigated from underground sources by individual landholders in South Australia. The most important of these areas are the North Adelaide Plains (market gardens) and the Padthaway district of the south-eastern region (pastures, fodder, seed crops and vines).

Adelaide Metropolitan Water Supply

About 30 per cent of Adelaide's water supply needs are currently piped from the River Murray, with the percentage rising with urban and industrial development. The principal sources of supply for the nine reservoirs in the Mount Lofty Ranges are the Rivers Torrens, Onkaparinga, South Para and Myponga. A tenth is under construction.

Country reticulation supplies

A number of reservoirs in the Barossa Ranges and other local sources are augmented by the Morgan-Whyalla, Swan Reach-Stockwell and Tailem Bend-Keith pipelines which provide River Murray water to extensive country areas. A network of branch mains provides the means of conveying water to numerous towns and large areas of farmlands.

Surface and underground resources have been developed to supply most country centres not covered by the larger schemes. Victor Harbor and adjoining south coast resort centres are supplied from reservoirs and the River Murray. A reservoir on Kangaroo Island supplies Kingscote and adjacent farmlands. Underground resources of the lower south-east supply all towns in the region, the city of Mount Gambier and nearby farmlands being reticulated from the well-known Blue Lake. At the far northern opal mining town of Coober Pedy a reverse osmosis desalination plant provides a potable supply from brackish groundwater. Other centres in the far north obtain supplies from the Great Artesian Basin. For details on underground water resources in South Australia *see* Year Book No. 55 and earlier years.

South-eastern drainage

A section of the South-East Coast Drainage Division extends into South Australia but has no co-ordinated drainage pattern to form a significant surface water resource. However, a high rainfall in the area is related to underground resources. Surplus water is not easily disposed of in the valleys and low range terrain, and drainage systems have been undertaken by the Government in co-operation with landholders. For further details *see* Year Book No. 61, pages 888-9.

Murray River Irrigation Areas

Where irrigation water in excess of plant requirements has been applied, perched water tables develop. Rising to the level of tree roots, these cause the death of orchards from salination and water-logging. Most orchards and vineyards are now drained by plastic and tile drainage systems, thus restoring their health and productivity. At present, disposal of drainage water is achieved by pumping to basins on river flats where it evaporates or is discharged into the river when it is in flood. It may also be discharged into underlying sand and limestone aquifers. The usefulness of these aquifers is declining as they are becoming fully charged with water.

Investigations are being made, in the light of the new *Water Resources Act*, into alternative disposal schemes to provide added protection to both the river and the associated underground aquifers.

Western Australia

Administration

The Minister for Water Supply, Sewerage and Drainage administers the departmental irrigation schemes under the *Rights in Water and Irrigation Act*, 1914–1971. He is advised by an Irrigation Commission representing the local irrigationists and government, technical and financial branches. He also administers, under the *Country Areas Water Supply Act*, 1947–1964, the water supplies to certain country towns and reticulated farmland. As Minister for Works he controls minor non-revenue producing supplies to stock routes and a few mines and agricultural areas with their associated communities. A small number of town supplies are administered by local boards under the *Water Boards Act*, 1904-1969, which provides a large degree of autonomy with ultimate Ministerial control.

Irrigation

Irrigation schemes have been established by the Government on the coastal plain south of Perth in the Waroona, Harvey and Collie River and Preston Valley Irrigation Districts between Waroona and Donnybrook, the water being channelled from dams in the adjacent Darling Range. The success of dairying and stock raising and, to a lesser extent, vegetable growing, which have replaced citrus growing, has led to a gradual but substantial extension of irrigation areas in the south-west.

Although not yet comparable in size with the south-west irrigation districts, the irrigation areas at Carnarvon and on the Ord and Fitzroy Rivers in the Timor Sea Drainage Division in the north of the State are of increasing significance.

Since the mid 1930s, a centre of tropical agriculture has been developed at Carnarvon, near the mouth of the Gascoyne River. Private pumping from sands of the Gascoyne River is the principal source of irrigation water for the 167 plantations. Because of the high risk of drawing in surrounding saline ground waters by over-pumping, the usage of water by the planters is controlled strictly by the Government. The Government is developing up-river sources and delivers water by pipeline to 109 plantations in the district. Bananas for the Perth market and fruit and vegetables for the Perth and Adelaide markets are the principal crops. A tropical research station is maintained at Carnarvon by the Department of Agriculture.

The Ord River Irrigation Project in the Kimberley Division provides for the eventual development of an irrigation area of 72,000 hectares of land, one third of which is in the Northern Territory. The first stage, in which water was supplied from the Kununurra Diversion Dam (capacity 98.7 mil. cubic metres) to 30 farms averaging 270 hectares plus a 970 hectare pilot farm was completed in 1965. Cotton was the principal crop, with grain sorghum and fodders for cattle fattening also important. Completion in 1971 of the Ord River Dam, which stores 5,720 mil. cubic metres in Lake Argyle, has allowed expansion of the area to be irrigated into the second stage. Five farms averaging 388 hectares were allocated in 1973. Since then, cotton has been phased out due to high off-farm costs and increasing costs of insect control specific to the cotton industry. A downturn in the Australian beef industry coincided with this and farming activity was reduced. Rice and peanuts are now showing promise commercially.

The Camballin Irrigation District on the Fitzroy River flood plain in the West Kimberleys is dependent on diverted river flows and a small volume of storage behind the diversion structures on the Fitzroy River and Uralla Creek. Grain and fodder sorghums are the main crops.

Country water supplies controlled by Department of Public Works

Since 1947 enlargement and extensions of the Goldfields and Agricultural Water Supply and the development of the Great Southern Towns Water Supply have been carried out, mainly in accordance with a project known as the Modified Comprehensive Scheme. Under this scheme water has been supplied to towns and farms in the cereal and sheep districts of the State. Two years after the completion of the 1.7 million hectare scheme in 1961, an extension of 1.5 million hectares was agreed to with Federal-State funding.

Goldfields and Agricultural Water Supply

Water for the Eastern Goldfields is supplied by pipeline from Mundaring Reservoir in the Darling Range. With extension to towns and agricultural areas, the scheme now serves over 110 towns and localities and the water is being reticulated to 2.7 million hectares of farmland.

Great Southern Towns Water Supply

This scheme provides water from Wellington Dam to towns on the Great Southern Railway from Brookton to Katanning, supplying 32 towns and being reticulated to 0.6 million hectares of farmland.

Underground water

Considerable use is made of groundwater by individual farmers, pastoralists, market gardeners and others, although the water quality varies from place to place and much of it is too saline for irrigation or even stock purposes. Artesian wells throughout the State and non-artesian wells within 'declared' areas must be licensed under the *Rights in Water and Irrigation Act*, 1914–1971. Industries also use groundwater in substantial quantities, especially in the processing of titanium, iron and alumina, and this demand has intensified the search for groundwater.

Tasmania

Main purposes of water conservation and utilisation

Because of the generally more adequate rainfall in Tasmania, scarcity of water is not such a problem as it is in most mainland areas, though not all streams are permanently flowing. The only large-scale conservation by reservoirs is for hydro-electric power generation, but there are some moderately-sized dams built by mining and industrial interests and by municipal authorities for town water supplies. 'Run of the river' schemes are quite adequate for assured supply in many municipalities. The main supply for Hobart and adjacent municipalities originates from a 'run of the river' scheme based on the Derwent River. The river is controlled in its upper reaches by eight dams, built for hydro-electric power generation, and these tend to stabilise river flow.

Until a few years ago irrigated areas were negligible except for long established hop fields, but there is a rapidly expanding use of spray irrigation on orchards, pastures, potatoes and beans. Until recent years there has been almost complete dependence on natural stream flows, but the need for some regulating storages has become apparent. Increasingly, farmers are constructing storages of their own, and the extension of this practice is foreseen as the logical solution in most areas, as valleys are narrow and steep sided. Single large reservoirs cannot economically serve large areas of suitable land, as nearly every valley is separated from others by pronounced hills, prohibiting the construction of cross-country channels.

Underground water suitable for stock, minor irrigation works and domestic use is exploited in the consolidated rocks of southern, midlands and north-western Tasmania. In the south and midlands, nearly all groundwater is obtained from Permian and Triassic rocks. In the north-west, water is recovered from a variety of rocks ranging from Precambrian dolomites, quartzites and schists to Tertiary basalts and Quaternary sands. The highest yields are obtained from the dolomites and the basalts. In the central north and north-east, unconsolidated Tertiary clays and gravels yield water of variable quality. In some coastal areas, notably King and Flinders Islands, water is obtained from aeolian sands.

The Mines Department is charged with the investigation of underground water resources. There is a great reserve of untapped permanent streams in the western half of the State, which is largely unsettled. The State's largest rivers discharge in the west, but diversion to the eastern half of the watersheds is not regarded as practicable. The Hydro-Electric Commission, however, has planned for the future development of four storage dams in the West Coast region on the Pieman, Murchison and Mackintosh Rivers.

Administration

In Tasmania, water supply was once exclusively the responsibility of local government authorities, but two statutory authorities, the Metropolitan Water Board and the Rivers and Water Supply Commission, now operate bulk supply schemes, piping water for distribution by the local government authorities in the Hobart and Launceston regions, and directly to certain industrial consumers. The Board is responsible for the supply of water in the Hobart, Clarence, Glenorchy and Kingborough local government areas, while the Commission exercises a general control over the utilisation of the State's water resources and has specific functions in relation to local government authority water, sewerage and drainage schemes.

Rivers and Water Supply Commission. The Commission is empowered by the *Water Act* 1957 to take water at streams and lakes, or to issue others with licences to do so; licensing covers supply to specific industries and municipalities as well as for irrigation. The Commission is concerned with drainage trusts' operations, river improvements (including repairs after flood damage), stream gauging, its own regional water schemes, and with water supply, sewerage and drainage of towns.

It operates in a similar manner to the Metropolitan Water Board in controlling the water schemes serving the East Tamar region (North Esk Regional Water Supply), the West Tamar area (West Tamar Water Supply) and the Prosser River Scheme, which was originally constructed to supply water to a sodium alginate industry at Louisville near Orford and to supplement the water supply of the township of Orford. The sodium alginate industry ceased production in December 1973. The North Esk Regional Water Supply was constructed to meet industrial requirements of the alumina refinery and other industries at Bell Bay, and to provide bulk supplies to surrounding municipalities on the eastern bank of the River Tamar. The West Tamar Water Supply was constructed primarily to meet domestic requirements of urban areas in the Beaconsfield municipality. The local government authorities retain primary responsibility for reticulation and sale to consumers, except to certain industrial users.

In municipalities not serviced by the Metropolitan Water Board or the Rivers and Water Supply Commission, the supply of water is a function of the local municipal council. Where the construction of water and sewerage schemes is beyond the financial capacity of a local government authority, or if it requires assistance to pay for water supplied from regional schemes, the Commission may make recommendations to the Minister for payment of a subsidy.

Irrigation

The Cressy-Longford Irrigation Scheme, officially opened in March 1974, was the first major irrigation project to be established in Tasmania. The source of supply is the tailrace of the Poatina hydro-electric power station from which up to 12 million cubic metres will be available to farmers both inside and outside the irrigation district. Some 9,000 hectares, half of which are watered by gravity, will eventually be irrigated. The scheme services about sixty-five farms within the irrigation district (mostly by the spray sprinkler system), while a further thirty farms on the fringes will benefit from augmented river flows.

The Cressy-Longford Scheme which is operated by the Rivers and Water Supply Commission, and a privately owned scheme at the Lawrenny estate at Ouse, are the only extensive irrigation works in Tasmania. A large portion of the 22,305 irrigated hectares in the State in 1975 76 were watered by private schemes pumping water from natural streams. Approximately 50 per cent of the area was sown and native pastures. Vegetables occupied about 30 per cent, with potatoes responding particularly well to irrigation.

Northern Territory

Information on climatic conditions will be found in the chapter Climate of Australia. A brief outline of contour and physical characteristics is in Chapter 27, Territories of Australia.

Administration

Under the Northern Territory *Control of Waters Ordinance* 1938, control of natural waters is vested in the Crown. Where a watercourse or lake forms a boundary of any land alienated by the Crown, the beds and banks are deemed to remain the property of the Crown (except in special cases). The diversion of water is prohibited except under prescribed conditions. The Ordinance requires that drilling for groundwater be carried out only by drillers who are registered under the Ordinance. Registered drillers are required to provide the Government with information on bores drilled, including the location, depth and size of bore, strata encountered and water produced. In particular areas, described as Water Control Districts, where stricter control is necessary, the construction or use of a well or water bore without a permit can be prohibited.

Under the *Water Supplies Development Ordinance* 1960, any landholder engaged in pastoral or agricultural production may seek information or advice from the Commissioner of Water Development who is appointed under the Ordinance. He may also apply for an advance towards the cost of work proposed to be carried out. The Ordinance also provides for a refund to the landholder of the cost of drilling an unsuccessful bore where the landholder has applied to the Commissioner for advice on its construction and has carried out all drilling operations in accordance with advice given.

The Water Resources Branch of the Department of the Northern Territory carries out systematic stream guaging, the collection of data relating to the quantity and quality of surface and groundwater, the planning of water use for industrial, irrigation and town water supplies, and flood prevention and control. It also provides a general advisory service to the public on water resources and water conservation by providing information on the geology of the Territory, the prospects of obtaining groundwater, the possible location of bore sites, the method of drilling and equipping bores, stream flows, surveys of dam sites, the design of water supply schemes and reticulation lay-outs, and the chemical and bacteriological quality of water supplies. It is involved in water pollution studies and control, and carries out environmental assessments of water and related developments. The Branch administers both of the ordinances described.

Underground water

For information on underground water resources in the Northern Territory *see* Year Book No. 55 and earlier issues, and the Australian Water Resources Council's publication, *Groundwater Resources of Australia*, 1972 and *Review of Australia's Water Resources*, 1975

Of approximately 9,000 bores and wells registered in the Territory, 56 per cent were for pastoral use, 12 per cent were investigation bores, 9 per cent served town domestic supplies, 5 per cent were for crop use, 2 per cent were used on mining fields, and the remainder were classified under other uses which included collapsed bores with insufficient or poor quality groundwater.

Community water supplies

The largest water conservation projects in the Territory are the Darwin River Dam (259.0 million cubic metres) and the Manton Dam (15.7 million cubic metres) which both serve Darwin with a reticulated water supply. Groundwater from McMinns Lagoon area can be used to augment supply.

Most other towns and communities, including Alice Springs, Tennant Creek, Katherine and Nhulunbuy, are supplied from groundwater.

Surface water measurement

The hydrological investigations required in the Northern Territory as part of the National Water Resources Assessment Program are being carried out by the Water Resources Branch. The program for the Northern Territory includes establishment of base streamgauging stations and pluviographs (automatic rainfall recorders). In particular areas of development where water supply or irrigation proposals require special or extra surface water data, supplementary gauging stations are built to obtain this information. The streamguaging network of the Branch comprises operating stations (base gauging and supplementary) and pluviographs. The Commonwealth Scientific and Industrial Research Organization and the Bureau of Meteorology also maintain streamflow and rainfall recording stations.

Irrigation for agricultural purposes in the Territory is not extensive, being confined to isolated locations near the Darwin and Adelaide Rivers, Coomalie Creek, Daly River, Katherine River, Wickham River, Douglas River, Edith River and Alice Springs area, with only small areas being utilised. The actual area irrigated (911 hectares in 1975–76) is far less than the area licensed. Purposes for which irrigation water is used include the growing of fruit, vegetables, crops, fodder pastures, with dairying and mixed farming. A number of farms, particularly in the Alice Springs area, are irrigated from bore waters.

Both the Daly and Adelaide Rivers appear to offer considerable potential for irrigation development with regulation of the rivers. Extensive investigations are being conducted into possible dam sites and areas of land suitable for irrigation in the region, and there is a need for other associated studies. Irrigation trials are in progress using water from the high-production bores in the Daly Basin. Further exploratory drilling in this area is being carried out. There is an increasing demand for water resource assessment studies and assistance for relatively small irrigation projects.

Investigations are continuing into areas of the Northern Territory which may be suitable for irrigation from the main storage on the Ord River in Western Australia.

Australian Capital Territory

The climate of the Australian Capital Territory is such that annual evaporation exceeds the annual rainfall of about 600 mm. Primary producers have therefore found it necessary to practice water conservation, and to irrigate from groundwater supplies during dry periods.

Surface water

Surface water storages supplying the Capital City (pop. about 208,000) and the city of Queanbeyan (pop. about 20,000) are located in the heavily timbered, mountainous, western part of the A.C.T. within the catchment of the Cotter River. Corin, Bendora and Cotter Dams serve the two cities, and another storage, Googong dam, is being developed on the Queanbeyan River to the east of the A.C.T.

Groundwater

Groundwater in the A.C.T. and environs occurs mainly in fractures in crystalline rock such as granite and porphyry; in folded and fractured slate; and in solution cavities in limestone. Alluvial aquifers of significance are restricted to the Lake George basin and small areas along mature sections of the Molonglo and Murrumbidgee Rivers. Groundwater has been used in the past by most primary producers to augment surface storage. Groundwater production bores in the A.C.T. have yields ranging between about 0 4 and 20 cubic metres per hour; 3 cubic metres per hour is about the average yield. However, many farm bores have fallen into disuse as a result of the Government's resumption of virtually all freehold land within the A.C.T., and because of the rapid expansion of urban growth. The Bureau of Mineral Resources has provided a bore-siting, groundwater-quality and yield-prediction service in the A.C.T. since the early 1950's and maintains a network of 48 observation bores which are monitored regularly on a long-term basis. Emphasis has shifted recently from predicting groundwater levels for rural landholders, to trying to establish the groundwater resources that are available for augmenting surface water supplies for urban purposes. Data are now being collected on groundwater occurrences within the A.C.T. and environs for preparation by the Bureau of a 1:100,000 scale hydrogeologic map.

Many bores have been drilled in the Canberra area for determination of groundwater conditions for specific projects such as dam sites, sewer tunnels, deep foundations for large buildings or for feasibility studies for urban development. These bores are generally monitored for short periods only. Long-term monitoring of water infiltrating from refuse-disposal areas commenced in 1977.

In 1975–76, a total area of 220 hectares was under irrigation in the A.C.T., of which 46 hectares were planted to vegetables.

Control of irrigation and farm water supplies is exercised by the Conservation and Agriculture Branch of the Department of the Capital Territory. The Bureau of Mineral Resources of the Department of National Resources provides technical advice to landholders on groundwater and, occasionally, on runoff.

Water conservation on farm holdings was shown to be deficient in the severe 1965-68 drought, when stock were moved to areas outside the A.C.T. Improvements through the provision of additional or larger farm dams and of bores have been made in recent years.

WATER SUPPLY, SEWERAGE AND DRAINAGE

The information in this section relates primarily to the metropolitan areas and provincial cities and towns.

New South Wales

The two largest domestic water supply and sewerage systems are controlled by statutory boards, each consisting of a president and a vice-president appointed by the State Government and five members elected by local councils. The Boards are *(a)* the Metropolitan Water, Sewerage and Drainage Board, which administers the systems in the County of Cumberland (i.e. in Sydney and surrounding districts), and, in addition, has jurisdiction over territory extending along the South Coast beyond Wollongong to Lake Illawarra, Shellharbour and Kiama, and *(b)* the Hunter District Water Board serving the Newcastle-Maitland-Cessnock areas. At Broken Hill and Cobar, similar boards include representatives of the mining companies. Other systems, apart from irrigation projects and water storage systems administered by the State Government, are controlled by county, municipal or shire councils.

Metropolitan and Hunter District water supply

The storage reservoirs of the metropolitan water supply system have a combined available capacity of 2,623,275 megalitres and drain catchment areas of 16,650 square kilometres, including Warragamba, 9,000 square kilometres; Shoalhaven, 5,620 square kilometres; Upper Nepean, 900 square kilometres; and Woronora, 85 square kilometres. The development of a water supply system on the Warragamba River was completed with the official opening of the Warragamba Dam in October 1960. This dam, constructed in concrete, has a storage capacity of 2,057,000 megalitres. Its safe net draught is estimated to be 1,246 megalitres a day. At 30 June 1976, there were 203 service reservoirs in use with a combined capacity of 4,349 megalitres. Fluoridation of the metropolitan water supply commenced in April 1968.

The following table shows, for the Metropolitan system, the number of properties, the estimated population supplied, and other details.

METROPOLITAN WATER SUPPLY(*a*), NEW SOUTH WALES: SERVICES

Year	Improved properties for which water mains available	Estimated population supplied	Average daily consumption	Total consumption for the year	Average daily consumption		Length of mains	Number of meters
					Per property	Per head of estimated population		
		'000	Ml	Ml	l	l	km	
1971–72 .	839,984	3,040	1,341	490,241	1,596	441	14,798	634,211
1972–73 .	862,353	3,063	1,418	518,100	1,646	464	15,163	655,156
1973–74 .	880,543	3,089	1,380	504,575	1,570	448	15,461	669,381
1974–75 .	906,646	3,132	1,494	545,180	1,647	477	15,714	699,259
1975–76 .	928,004	3,144	1,471	538,465	1,585	468	16,010	703,656

(*a*) County of Cumberland, City of Greater Wollongong, Shellharbour and Kiama Municipalities, and parts of Colo and Wollondilly Shires.

The water supply of the Hunter District system is drawn principally from three sources: the Chichester Reservoir, with a storage capacity of about 17,000 megalitres and draining a catchment of 197 square kilometres; the Tomago Sandbeds, which extend northerly along the coast towards Port Stephens; and the Grahamstown Water Supply Scheme which is still being developed. Another source of supply is provided by the Nelson Bay-Anna Bay Scheme. Service reservoirs and tanks distributed throughout the water supply district have a total storage capacity of 648 megalitres.

Metropolitan and Hunter District sewerage and drainage system

The metropolitan sewerage and drainage system serving the Sydney Statistical Division comprises four major sewerage systems and twelve minor systems, consisting of six outfalls discharging directly into the Pacific Ocean and twelve treatment works. There are also three centres outside the Sydney Statistical Division (Bellambi, Port Kembla and Wollongong) which discharge directly into the Pacific Ocean. Stormwater drainage channels under the control of the Metropolitan Water, Sewerage and Drainage Board at 30 June 1976 were 314 kilometres long.

The following table gives details of sewerage services and stormwater drains of the Metropolitan system.

METROPOLITAN SEWERAGE AND DRAINAGE(*a*)
NEW SOUTH WALES: SERVICES

30 June	*Improved properties for which sewerage available*	*Estimated population served*	*Length of sewers*	*Length of stormwater channels*
		'000	km	km
1972 . . .	696,342	2,531	11,965	309
1973 . . .	725,838	2,600	12,511	312
1974 . . .	753,752	2,662	13,018	313
1975 . . .	790,286	2,747	13,492	314
1976 . . .	819,186	2,802	14,026	314

(*a*) County of Cumberland, City of Greater Wollongong, Shellharbour and Kiama Municipalities, and parts of Colo and Wollondilly Shires.

The main sewerage system of the Hunter District serves the City of Newcastle and discharges into the Pacific Ocean at Burwood Beach. There are also local treatment works at Maitland, Cessnock and some of the outlying districts.

Metropolitan system finances

The following table shows the debt, revenue and expenditure of the Metropolitan Water, Sewerage and Drainage Board for each of the Services of water supply, sewerage and drainage during 1975–76, and for the three services combined for the years 1971–72 to 1975–76.

METROPOLITAN(*a*) WATER SEWERAGE AND DRAINAGE BOARD, NEW SOUTH WALES: FINANCES
($'000)

			Expenditure				
Year	*Capital debt at 30 June*	*Revenue*	*Working expenses (b)*	*Interest and exchangh*	*Debt redemption*	*Total*	*Surplus*
1975–76—							
Water . . .	491,160	99,285	57,660	30,858	10,292	99,284	1
Sewerage . . .	635,838	115,869	61,010	41,976	12,433	115,866	3
Drainage . . .	17,099	4,433	3,223	969	219	4,426	8
Total—							
1975–76 . .	**1,144,097**	**219,587**	**121,894**	**73,803**	**22,944**	**219,576**	**11**
1974–75 . .	992,361	160,620	85,613	55,346	19,638	160,597	23
1973–74 . .	855,741	151,027	86,940	46,588	17,477	151,005	22
1972–73 . .	769,930	136,592	78,538	42,522	15,524	136,584	10
1971–72 . .	715,978	119,851	68,083	37,736	14,017	119,836	14

(*a*) County of Cumberland, City of Greater Wollongong, Shellharbour and Kiama Municipalities, and parts of Colo and Wollondilly Shires. (*b*) Includes provision for renewals, long service leave, etc.

Local government water supply and sewerage systems

At 31 December 1975, country water supply services were conducted or under construction by thirty-nine municipalities, 101 shires and six county councils, and sewerage services by forty-five municipalities and eighty-nine shires. The capital indebtedness of these schemes was $220,268,000 at 31 December 1975. Debt of the municipalities and shires amounted to $200 888,000 and county councils to $19,380,000. Government advances amounting to $2,023,000 are included in these figures. Aggregate income and expenditure amounted to $66,172,000 and $44,093,000 respectively in 1975.

Other water supply and sewerage systems

The water supply and sewerage services for Broken Hill are operated by a statutory board, the Broken Hill Water Board. Its capital indebtedness at 31 December 1975 was $3,875,000. In 1975, income (excluding subsidies from the State Government of $358,000 and from mining companies of $1,082,000) amounted to $1,190,000 and expenditure (excluding debt redemption of $342,000) amounted to $2,315,000. The Cobar Water Board was constituted in February 1964. At 31 December 1975 its capital indebtedness was $1,936,000. The following country water supply systems are administered by the Department of Public Works: South-west Tablelands, Junee and Fish River. These supply water in bulk to municipalities and shires, the Electricity Commission of New South Wales, and other large consumers. Only a small quantity is sold direct to private consumers. The capital indebtedness of these systems was $20,998,000 at 31 December 1975. The Mulwala Water Supply and Sewerage Service was constructed as an urgent war-time work for the Commonwealth Government, and the Bethungra Water Supply System is administered by the Department of Public Works in conjunction with the Junee supply.

Victoria

Melbourne and Metropolitan Board of Works

The Board consists of a Chairman, Deputy Chairman, and 54 Commissioners elected to represent the municipalities which lie wholly or partly within the metropolitan area. The principal functions of the Board are: to control and manage the metropolitan water supply system; to provide the metropolitan area with an efficient main and general sewerage system; to deal with main drains and main drainage works; to control and manage the rivers, creeks and watercourses within the metropolitan area; and to carry out the functions of a permanent planning authority.

Metropolitan water supply

There are 7 storage reservoirs serving the metropolitan area. These have an effective capacity of approximately 610,000 megalitres, made up as follows: Yan Yean, 30,000 megalitres; Maroondah, 22,000; O'Shannassy, 4,000; Silvan, 40,000; Upper Yarra, 200,000; Greenvale, 27,000 and Cardinia, 287,000. Service reservoirs number sixty-six (comprising forty-three service reservoirs proper, fourteen elevated tanks and nine ground level tanks), with a total capacity of approximately 1,840 megalitres. The following table shows particulars of Melbourne metropolitan water supply services for the years 1971–72 to 1975–76.

MELBOURNE WATER SUPPLY: SERVICES

Year	Number of improved properties supplied	Estimated population supplied	Total consumption for the year	Average daily consumption			Length of acquaducts, etc., mains and reticulation	Number of meters
				Total	*Per improved property*	*Per head of estimated population*		
		'000	Ml	Ml	l	l	km	
1971–72 .	722,016	2,363	331,465	906	1,254	370.1	12,012	644,904
1972–73 .	748,990	2,415	315,208	864	1,153	(a)342.7	12,268	663,994
1973–74 .	787,052	2,445	361,858	991	1,260	405.5	12,434	678,361
1974–75 .	809,372	2,476	355,625	974	1,204	393.7	12,724	694,753
1975–76 .	829,941	2,507	384,058	1,049	1,268	418.6	12,897	701,366

(a) Restrictions on use of water imposed due to drought conditions.

Metropolitan sewerage and drainage

Particulars of sewerage and drainage services for 1971–72 to 1975–76 are shown below.

MELBOURNE SEWERAGE AND DRAINAGE: SERVICES

Year	*Number of improved properties for which sewers are provided*	*Estimated population for which sewers are provided*	*Total sewage discharge for the year*	*Average daily discharge*			*Length of sewers, etc.*	*Length of mains' drains*
				Total	*Per improved property*	*Per head of estimated population*		
		'000	megalitres	megalitres	litres	litres	kilometres	kilometres
1971–72 .	575,221	1,885	192,750	526	915	279	8,501	426
1972–73 .	591,673	1,939	202,792	556	940	287	8,731	438
1973–74 .	621,161	2,036	219,144	600	967	295	8,920	447
1974–75 .	640,165	2,068	223,879	613	958	297	9,331	454
1975–76 .	662,912	2,089	236,735	649	1,013	314	9,849	475

The metropolitan sewerage system in Melbourne consists of two major systems serving each side of Port Phillip Bay. Development north and west of the Bay is served by the Western (Werribee) System and development north-east, east and south-east of Melbourne is served by the South-Eastern Sewerage System. The Werribee Board of Works Farm handles about three-quarters of the annual flow from Melbourne's sewered areas. The remainder is handled by the South-Eastern System; by several other localised systems serving smaller sections of the metropolis yet to be connected to either of the two main sewerage systems; and by regional and neighbourhood purification plants serving specific tracts of development. These localised systems and smaller plants will be phased out of service in future years as the sewerage system proper is extended.

The Western System is centered on the Brooklyn Pumping Station and the Metropolitan Farm at Werribee, 35 kilometres south-west of Melbourne. Covering an area of some 10,850 hectares, the Farm has been in operation since 1897, the inaugural year of Melbourne's sewerage system. Today the Farm uses land and grass filtration and lagooning methods to purify nearly 165,000 megalitres of raw sewage annually before discharging the treated sewage into Port Phillip Bay as reconditioned water.

The South-Eastern Sewerage System—the first component of a planned major Eastern System—came into service in September 1975, with the commissioning of the South-Eastern Purification Plant at Carrum, south of Melbourne. Apart from diverting some of the total sewage flow away from Werribee, thus temporarily relieving pressure on the Western System, the South-Eastern System has provided long-needed sewerage facilities to Melbourne's fast-growing eastern sector. Sewage totalling about 62,000 megalitres annually reaches the South-Eastern Purification Plant via the South-Eastern Trunk Sewer which runs south to Carrum from a pumping station in the eastern suburb of Kew. Reconditioned water from the plant flows to Cape Schanck, more than 55 kilometres south of Carrum, where it is discharged into Bass Strait. The treatment capacity of the South-Eastern Purification Plant will be expanded in stages as additional components of the Eastern Sewerage System are constructed.

Melbourne and Metropolitan Board of Work's finances

The following table provides for the year 1975–76 a summary of the financial operations of the water supply, sewerage and drainage services conducted by the Melbourne and Metropolitan Board of Works, and of the combined services for the years 1971–72 to 1975–76. The financial operations of the Board as the Authority responsible for metropolitan highways and bridges until 30 June 1974, are referred to on page 635 of Year Book No. 61.

MELBOURNE AND METROPOLITAN BOARD OF WORKS: FINANCES
($'000)

Service, etc.		*Capital cost of works and buildings at 30 June(a)*	*Revenue*	*Expenditure*					*Surplus (+) or deficit (−)*
				Working expenses	*Works*	*Interest and exchange*	*Debt redemption*	*Total*	
Water		434,343	57,140	21,848	1,652	24,054	. .	47,554	+9,586
Sewerage		627,037	79,727	28,143	3,068	37,131	. .	68,342	+11,385
Drainage		66,139	10,364	5,009	1,180	2,976	. .	9,165	+1,199
General(*b*)		48,037	. .	(*c*)10,478	. .	. .	8,018	18,495	−18,495
Total	**1975–76**	**1,175,556**	**147,231**	**65,478**	**5,900**	**64,161**	**8,018**	**143,556**	**+3,674**
	1974–75	1,016,356	115,521	50,791	5,000	51,708	7,164	114,663	+ 858
	1973–74	871,984	89,878	36,199	5,000	42,027	6,148	89,373	+ 505
	1972–73	755,732	74,340	28,376	5,000	36,978	5,499	75,853	−1,513
	1971–72	646,054	67,757	26,047	5,000	30,700	4,517	66,264	+1,493

(*a*) Total loan indebtedness—1975-76, $999,792,000. (*b*) Statutory and general expenditure not distributed over services. (*c*) Includes $1.8 m appropriated for sundry purposes.

State Rivers and Water Supply Commission

Water supply and conservation throughout Victoria (except for the area controlled by the Melbourne and Metropolitan Board of Works) is under the jurisdiction of the State Rivers and Water Supply Commission. The events leading to the establishment of the Commission, and its various works, were described earlier in this chapter.

Queensland

The Brisbane City Council

The Brisbane City Council operates the water supply and sewerage systems of the City of Brisbane and also supplies, in bulk, the whole of the water used by the City of Ipswich and a portion of that used by the City of Redcliffe, and the Shires of Albert, Beaudesert and Moreton. Redcliffe supplements its supply from that of the Pine Rivers Shire Council, while Albert and Moreton also draw on their own reservoirs. The total number of service reservoirs for Brisbane Water Supply is 33 with a capacity of 617 megalitres. The major sources of water supply to the Brisbane City Council are the Somerset and North Pine River reservoirs. The Somerset reservoir is a dual purpose project with a designed total holding capacity of 910,000 megalitres, 370,000 megalitres to be for water storage and 540,000 megalitres for flood mitigation. The North Pine River reservoir has an available capacity of 200,000 megalitres. The following table is a summary of operations of the water supply system of the City of Brisbane for the years 1971–72 to 1975–76.

CITY OF BRISBANE WATER SUPPLY: SERVICES

Year	*Services connected*	*Estimated population supplied*	*Average daily consumption*	*Total consumption for the year*	*Average daily consumption*		*Length of reticulation mains*
					Per service	*Per head of estimated population*	
			megalitres	megalitres	litres	litres	kilometres
1971–72	197,918	704,588	380.5	139,299	1,923	541	3,829
1972–73	201,040	715,702	415.5	151,736	2,068	582	3,930
1973–74	206,438	720,468	400.0	145,985	1,937	557	4,015
1974–75	208,454	731,648	451.9	164,939	2,168	649	4,075
1975–76	211,466	723,148	414.4	151,684	1,960	573	4,138

The sewerage treatment works of the Brisbane sewerage scheme is situated at Luggage Point at the entrance to the Brisbane River. The following table is a summary of operations of the Brisbane sewerage scheme for the years 1971–72 to 1975–76.

BRISBANE SEWERAGE: SERVICES

Year	*Premises connected*	*Estimated population served*	*Total sewage pumped for the year*	*Length of main, branch, reticulation, etc. sewers*
			megalitres	kilometres
1971–72 . .	167,585	596,603	40,642	4,033
1972–73 . .	182,184	648,575	41,397	4,369
1973–74 . .	192,858	673,074	53,372	4,672
1974–75 . .	202,347	706,191	48,739	4,820
1975–76 . .	207,652	701,864	58,525	4,918

Brisbane City Council water supply and sewerage systems—finances

The following table shows particulars of the finances of the water supply and sewerage undertakings of the Brisbane City Council for the years 1971–72 to 1975–76.

BRISBANE WATER SUPPLY AND SEWERAGE: FINANCES
($'000)

Service and year	*Gross capital cost to 30 June*	*Revenue*	*Expenditure*			*Surplus (+) or deficit (−)*
			Working expenses	*Interest, redemption etc., charges*	*Total(a)*	
Water supply—						
1971–72 . . .	95,135	13,604	5,436	4,052	10,748	+ 2,856
1972–73 . . .	n.a.	14,539	5,857	4,445	14,182	+ 357
1973–74 . . .	n.a.	16,377	7,036	5,683	15,110	+ 1,266
1974–75 . . .	n.a.	19,089	9,442	6,590	19,667	− 578
1975–76 . . .	n.a.	21,767	11,716	7,591	21,977	− 210
Sewerage—						
1971–72 . . .	77,876	11,171	2,531	3,620	6,979	+ 4,192
1972–73 . . .	n.a.	13,346	2,851	4,108	13,052	+ 294
1973–74 . . .	n.a.	14,172	3,679	4,225	10,352	+ 3,820
1974–75 . . .	n.a.	15,817	4,430	4,525	12,397	+ 3,420
1975–76 . . .	n.a.	18,180	5,368	5,522	14,018	+ 4,162

(*a*) Total, including other expenditure.

Other areas

At 30 June 1976, of the 130 local authorities in addition to the City of Brisbane, 127 had water supply schemes and 97 operated sewerage systems. The receipts (other than loan and loan subsidy) of water undertakings controlled by these authorities amounted to $30,637,000 in 1975-76. Expenditure amounted to $29,654,000, including $9,818,000 for debt charges. In addition, expenditure from loans and loan subsidy amounted to $29,652,000. Finances of sewerage undertakings are incorporated with cleansing and sanitary services and are not available separately.

South Australia

The water supply and sewerage systems in this State were mainly constructed, and are maintained by, the Engineering and Water Supply Department under the control of the Minister of Works. Works controlled by the Department are the Adelaide, Barossa, Beetaloo, Bundaleer, Moorook, Tod River, Warren, Yorke Peninsula, and other country water districts systems; the Morgan-Whyalla water supply system; the metropolitan and country sewerage systems; the Metropolitan Flood Waters Scheme; and works on the River Murray constructed under the River Murray Waters Agreement. Several water supply schemes on the Murray River are administered by the Department of Lands in conjunction with irrigation works, and supplies to Woomera and Leigh Creek coalfield are controlled by the operating authorities.

Adelaide waterworks

At 30 June 1975 the Adelaide waterworks supplied districts covering 1,852 square kilometres of the metropolis and extending to nearby country areas. The capacity of the principal reservoirs was 189,000 megalitres and there were 7,049 kilometres of metropolitan mains. The Mannum-Adelaide pipeline conveys water from the River Murray. Water is delivered to a terminal storage near Adelaide and thence to the metropolitan distribution system or, alternatively, it can be delivered into metropolitan reservoirs on the River Torrens. The pipeline also supplies various country areas along and extending from its route. A second River Murray pipeline extending from Murray Bridge to the River Onkaparinga is also used to supplement storage.

ADELAIDE WATERWORKS: FINANCES
($'000)

Year	Invested Capital at 30 June (a)	Revenue	Expenditure			Surplus
			Working expenses (b)	Interest	Total	
1971–72	**143,880**	**15,772**	**7,130**	**6,414**	**13,544**	**2,229**
1972–73	145,156	18,417	8,606	6,750	15,356	3,061
1973–74	153,239	20,699	10,120	7,543	17,664	3,035
1974–75	159,853	22,332	13,117	8,996	22,114	218
1975–76	169,447	28,957	15,295	10,279	25,575	3,383

(a) After deduction of depreciation. (b) Includes debt redemption.

Adelaide metropolitan sewerage system

The Adelaide metropolitan sewerage system, comprising the Adelaide, Glenelg, Port Adelaide, Christies Beach, and Salisbury-Elizabeth areas of 652 square kilometres in all, includes treatment works at Glenelg, Port Adelaide, Bolivar, and Christies Beach. Financial and other particulars for 1971–72 to 1975–76 are shown hereunder.

ADELAIDE METROPOLITAN SEWERAGE: SUMMARY

Year	Length of sewers	Number of connections	Invested capital at 30 June(a)	Revenue	Expenditure			Surplus
					Working expenses (b)	Interest	Total	
	km		$'000	$'000	$'000	$'000	$'000	$'000
1971–72	3,888	265,755	96,431	11,977	4,909	4,500	9,409	2,568
1972–73	4,060	276,652	92,642	12,964	5,400	4,946	10,346	2,618
1973–74	4,193	288,166	96,467	14,325	6,950	5,328	12,278	2,047
1974–75	4,400	297,300	101,020	16,137	9,751	5,963	15,714	423
1975–76	4,538	309,781	106,953	20,584	11,008	7,298	18,306	2,278

(a) After deduction of depreciation. (b) Includes debt redemption.

Country sewerage schemes

Sewerage schemes are operating at Port Lincoln, Naracoorte, Mount Gambier, Millicent, Lobethal, Gumeracha, Myponga, Mannum, Whyalla, Angaston and Murray Bridge. At Port Lincoln and Mount Gambier the sewers discharge to ocean outfalls and treatment works are used on the other systems, There are 616 kilometres of sewers and 24,939 connections in the country systems. Sewerage schemes for Port Pirie, Victor Harbor and Gawler are under construction and operating in part.

Country water supply

Water districts systems at 30 June 1975 comprised an area of 6,830,000 hectares. Supply came from reservoirs having a capacity of 36,000 megalitres, from minor reservoirs, from the River Murray, and from underground sources. Apart from local supplies, water from the River Murray is distributed over wide areas through Mannum–Adelaide, Morgan–Whyalla, Swan Reach–Stockwell and Tailem Bend–Keith pipelines and branches of these pipelines. The principal areas of underground supplies are in the south-east of the State—where water from the Murray basin can be had at moderate depths—or from lakes, and from sand beds on Eyre Peninsula. In the year 1974–75 supplies made to Mount Gambier, Naracoorte and other towns in the south-east amounted to 7,637 megalitres, and the Uley–Wanilla, Lincoln and Polda Basins contributed 7,842 megalitres to the Tod River Water District.

Morgan-Whyalla water supply scheme

This scheme, which has 359 kilometres of main via Port Augusta and 283 kilometres of main via the Spencer Gulf undersea crossing, was officially opened on 31 March 1944, the capital invested to 30 June 1976 being $39,731,000. Apart from supplying Whyalla, the mains have been used to allow expansion of reservoir supplies in the northern agricultural area of the State, and to meet new demands caused by industrial growth at Whyalla, Port Pirie and Port Augusta. During 1974–75 water used from the scheme amounted to 21,000 megalitres.

Western Australia

The principal water supply systems of Western Australia are under the control of two State authorities, the Metropolitan Water Supply, Sewerage and Drainage Board and the Public Works Department. The area which constitutes the territory administered by the Board encompasses approximately 5,040 square kilometres and comprises Perth and the metropolitan area southward to Warnbro Beach and Serpentine, northward to Gingin Brook and Herne Hill and eastward to Swan View–Sawyers Valley, Kalamunda, Bickley and Carmel. It also incorporates approximately 2,100 square kilometres of water catchment areas in the Darling Range. The Public Works Department controls the Goldfields and Agricultural Water Supply and the Great Southern Towns Water Supply as well as 138 local water supplies. Three independent town schemes are controlled by local Water Boards in country areas, and individual water supplies serve railways, timber mill towns, isolated mines, pastoral properties, stock routes, and agricultural areas, mainly from dams, tanks, wells and bores.

Metropolitan water supply, sewerage and drainage

The main sources of the metropolitan water supply are several reservoirs on the Darling Escarpment, the total capacity of these being 493,397 megalitres. The largest of these are the South Dandalup Reservoir, the Serpentine Reservoir and the Canning Reservoir which have capacities of 208,210 megalitres, 184,882 megalitres and 93,400 megalitres respectively. Water from storage on the Darling Escarpment is conveyed to service reservoirs with a combined capacity of 1,787 megalitres which serve the territory administered by the Board. Underground water is used to augment hill supplies. The amount used during 1975–76 was 31,017 megalitres, which was 15.9 per cent of the total consumption from all sources.

The following table shows particulars of the *metropolitan water supply services* for 1971–72 to 1975–76.

METROPOLITAN WATER SUPPLY, WESTERN AUSTRALIA: SERVICES

Year	*Number of services (a)*	*Average daily consumption*	*Total consumption for year*	*Average daily consumption per service (b)*	*Length of mains*	*Number of meters*
		ml	ml	l	km	
1971–72 . .	210,465	424.6	155,017	2,068	5,934	187,313
1972–73 . .	223,393	429.5	156,757	1,922	6,171	196,220
1973–74 . .	231,938	472.3	172,394	2,036	6,250	206,527
1974–75 . .	239,426	496.5	181,228	2,074	6,464	215,555
1975–76 . .	252,291	530.3	194,073	2,102	6,769	224,323

(*a*) Figures relate to 30 June. (*b*) Calculated from averages for the year.

Some particulars of the metropolitan sewerage and main drainage services for 1971–72 to 1975–76 are shown in the following table.

METROPOLITAN SEWERAGE AND MAIN DRAINAGE
WESTERN AUSTRALIA: SERVICES

Year	*Services*	*Length of sewers*	*Length of main drains*
		km	km
1971–72	87,318	1,991	253
1972–73	93,402	2,158	260
1973–74	99,698	2,432	277
1974–75	111,300	2,635	283
1975–76	120,000	2,886	295

Metropolitan Water Supply Sewerage and Drainage Board—finances

The following table shows particulars of the finances of the Western Australian Metropolitan Water Supply, Sewerage and Drainage Board.

METROPOLITAN WATER SUPPLY, SEWERAGE AND DRAINAGE BOARD
WESTERN AUSTRALIA: FINANCES
($'000)

Service and year	Capital cost to 30 June	Revenue	Expenditure			Surplus (+) or deficit (−)
			Working expenses	Depreciation and other charges	Total	
Water supply—						
1971–72 . . .	101,509	10,956	3,953	4,931	8,884	+2,073
1972–73 . . .	114,971	11,482	4,712	5,581	10,293	+1,189
1973–74 . . .	130,760	11,943	6,137	6,489	12,627	−683
1974–75 . . .	148,630	17,238	8,402	8,099	16,500	+738
1975–76 . . .	171,917	24,633	9,847	9,686	19,533	+5,100
Sewerage—						
1971–72 . . .	57,479	6,097	2,693	2,573	5,267	+831
1972–73 . . .	73,434	6,586	3,258	3,117	6,375	+211
1973–74 . . .	90,936	7,153	4,854	3,924	8,777	−1,624
1974–75 . . .	114,185	10,561	6,575	6,011	12,585	−2,024
1975–76 . . .	139,770	15,640	7,932	7,304	15,236	+404
Main drainage—						
1971–72 . . .	11,259	1,357	492	503	995	+362
1972–73 . . .	11,694	1,444	598	541	1,138	+306
1973–74 . . .	12,365	1,520	787	605	1,392	+128
1974–75 . . .	13,526	1,737	1,025	716	1,741	−4
1975–76 . . .	15,581	2,444	1,246	849	2,095	+350

Country water supplies

Information relating to country water supplies may be found earlier in this chapter.

Tasmania

Waterworks

In Tasmania, water supply was once the exclusive responsibility of the city and municipal councils. Two statutory authorities now operate bulk supply schemes, piping water for distribution by local government authorities in the Hobart and Launceston areas, and directly to certain industrial consumers.

The over-all control of water supply in the greater Hobart area, comprising the municipalities of Hobart, Clarence, Glenorchy, and Kingsborough, is vested in the Metropolitan Water Board, but the municipalities retain primary responsibility for reticulation. The Board maintains pumping stations at Bryn Estyn and Lawitta on the Derwent River near New Norfolk to supplement four water catchment and storage areas near Hobart. Total maximum capacity of the system at 30 June 1976 was 219 megalitres per day. The following table shows particulars of the finances of the Metropolitan Water Board.

METROPOLITAN WATER BOARD—TASMANIA: FINANCES
($'000)

Year	Capital expenditure to 30 June	Revenue	Expenditure			Surplus (+) or deficit (−)
			Working expenses	Interest and depreciation	Total	
1971–72 . . .	13,714	2,620	1,378	1,484	2,862	−242
1972–73 . . .	13,908	3,035	1,616	1,600	3,216	−181
1973–74 . . .	14,255	3,550	1,665	1,669	3,334	+216
1974–75 . . .	14,801	3,921	2,096	1,863	3,960	−39
1975–76 . . .	15,287	4,778	2,608	2,134	4,742	+36

The other statutory authority, the Rivers and Water Supply Commission, operates two schemes in the Launceston region. The North Esk Regional Water Supply Scheme supplies water to the municipalities of St Leonards, George Town, Lilydale and part of Westbury, and also supplies water directly to some industrial users situated near the Tamar River. The second scheme in this region, the West Tamar Water Supply, provides water to the Municipality of Beaconsfield. In addition to the above schemes, the Rivers and Water Supply Commission also operates an industrial water supply scheme on the east coast of Tasmania near Triabunna.

At 30 June 1976, water was supplied to approximately 115,185 properties throughout the State.

Sewerage

At 30 June 1976, the number of tenements connected to sewerage services was about 96,330. Approximately 87 per cent of sewerage discharge is subject to treatment.

Northern Territory

Information relating to water supply in the Northern Territory may be found earlier in this Chapter.

Australian Capital Territory

Information relating to water supply and sewerage in the Australian Capital Territory may be found in Chapter 27, Territories of Australia.

CHAPTER 16

MINERAL INDUSTRY

GENERAL

Geology and mineral resources

General geology

Most of the western and central part of the Australian continent consists of basement rocks of Precambrian age. Younger Palaeozoic rocks, mostly of geosynclinal origin, form a discontinuous belt several hundred miles wide extending from north Queensland to Tasmania. Mesozoic platform sediments form a broad zone separating the Palaeozoic and Precambrian rocks and extending from the Gulf of Carpentaria to central New South Wales. Cainozoic rocks occur mainly in Victoria, south-western New South Wales and southern South Australia, and as residual basalt cappings over extensive areas of the Palaeozoic rocks of eastern Australia.

Economic geology

Minerals of economic significance occur widely throughout the Precambrian and Palaeozoic rocks of the continent. Palaeozoic mineralisation is perhaps more varied, but the Palaeozoic deposits now being worked are in general smaller than those found in Precambrian rocks. Most of Australia's metallic mineral deposits occur within two broad regions: one of Precambrian rocks in the west and central areas of the continent; and one of younger Palaeozoic rocks in the east.

Mineral resources

Australia is self-sufficient in most minerals of economic importance (and much more than self-sufficient in some). Known adequate reserves of minerals with production sufficient for domestic demand and exports include aluminium (bauxite), black coal, copper, gold, iron ore, lead, natural gas, nickel, salt, silver, tin, tungsten and zinc. Adequate reserves sufficient for domestic demand include clays (except light grade china clay), brown coal, dolomite and felspar.

For further details of principal Australian mineral deposits, and notes on principal mineral resources, *see* Year Book No. 61, pages 925–932.

Administration

All mineral rights in Australia are vested in the Crown except those on land which was granted before the Crown began to reserve mineral rights. In practice, these private mineral rights are important only in the New South Wales coalfields. In the States, these rights are held by the State Governments and in the Territories of the Commonwealth they are vested in the Commonwealth Government. The Commonwealth Government is able also to influence over-all development and production activity in the mineral industry by virtue of its statutory powers with respect to international trade, customs and excise, taxation, and loan raisings. Certain specially-formed bodies such as the Joint Coal Board and the Australian Atomic Energy Commission have been given administrative responsibility in defined areas.

Control of mining

Each State or Territory has its own mining Acts or Ordinances and regulations governing the prospecting for and working of mineral deposits. These Acts, etc., are similar in principle but different in detail. They all made provision for miner's rights to prospect and for small mining leases for mineral production. The principles embodied were established many years ago when mining operations were generally small scale and labour-intensive. Although amendments have been enacted to modernise the legislation, it is generally inadequate for the large scale capital intensive operations often involved with modern mineral development. For this reason a large enterprise may take the course of acquiring mining titles by negotiation with the appropriate Minister for Mines and having the agreed terms and conditions embodied in an Act of the State Parliament. This method of acquisition has been used in several cases where the leasing company undertook an obligation (such as the erection of a large treatment works) in return for leases over large areas for a long period, and has become more common in recent years (e.g. iron ore in Western Australia, coal and bauxite in Queensland, bauxite in the Northern Territory). Mining legislation enacted in recent years is simpler and more suited to modern conditions.

AREAS OCCUPIED UNDER MINING ACTS AND ORDINANCES*(a)*

('000 hectares)

Year (31 December)	N.S.W.(b)	Vic.(c)	Qld(d)	S.A.(b)	W.A.	Tas.	N.T.(b)	Total
1972 . .	656	133	1,405	59	1,721	26	48	4,048
1973 . .	(e)1,115	25	1,258	58	1,850	36	51	4,393
1974 . .	n.a.	24	1,217	48	1,653	36	59	n.a.
1975 . .	n.a.	24	1,294	43	1,298	47	62	n.a.
1976 . .	n.a.	17	1,193	73	1,278	n.a.	64	n.a.

(*a*) Excludes areas held under special arrangements; *see* following text. (*b*) At 30 June. (*c*) Includes land held under *Extractive Industries Act* 1966. (*d*) Excludes lands held under miners' rights and dredging claims. (*e*) Figures not comparable with previous years; Includes some new coal titles, as defined by the *Coal Mining Act* 1973.

Control of exploration

This section refers in general to the exploration for all types of mineral deposits in Australia. Additional information relating to the search for petroleum is set out in the following section.

As a result of the introduction of large scale modern prospecting methods (particularly airborne prospecting), the small prospecting areas referred to in the previous section were found to be unsuitable in some instances, and steps have been taken in the States and Territories to ensure the availability of large areas for prospecting by interested persons. Large areas may be made available by provision within the Mining Acts or Ordinances for the issue of authorities to prospect over an area defined by a written agreement which also sets out provisions as to the amount of money to be spent, methods of prospecting, tenure of the agreement, etc.

The tenure of such areas is limited (usually to one or two years only) and, if renewed for a further period, is only over an area selected from the larger area (usually 50 per cent) as a result of work done during the life of the initial agreement. It does not give the holder any rights over, or authorities to prospect on, land already held under a mining title within the agreed area. Unless specifically stated in an agreement, the discovery of minerals, whether inside or outside an area covered by an authority to prospect, gives the discoverer no legal rights except the right to apply for a mining lease over the area in which the discovery was made. Suitable prospects are converted to mining tenements by making application for lease under the appropriate mining Act.

Control of petroleum exploration

On-shore. In Australia, all petroleum is the property of the Crown. Consequently, full control of petroleum mining rights is vested in the Government or Administration of each State or Territory. Any company, organisation or individual proposing to undertake petroleum exploration or development must first satisfy the Government concerned that the necessary financial and technological resources are available to carry out the operation.

There are three main types of petroleum title:

(*a*) the permit, covering initial geological, geophysical and exploration drillling;
(*b*) the licence (in Victoria only), which covers detailed surveys and drilling; and
(*c*) the lease, which covers development operations and production.

Further details of the petroleum legislation are given in Year Book No. 55, pages 996–7.

Off-shore. The *Sea and Submerged Lands Act* 1973 asserted Commonwealth sovereignty over the territorial sea and continental shelf. However, for the purpose of administering petroleum exploration in off-shore areas, complementary legislation was passed by the Commonwealth Government and each State Government in 1967 and the arrangements under this legislation are still applied. Thus the *Petroleum (Submerged Lands) Act* 1967 is the instrument whereby the control and safeguarding of the exploration and exploitation of petroleum resources on the territorial sea-bed and on the continental shelf are assured. Each State Government administers the Act in relation to its adjacent off-shore area, but refers certain matters to the Commonwealth Government. The Commonwealth Government has the administrative responsibility for the area adjacent to the Northern Territory.

The legislation provides for a two-stage system of titles: the exploration permit, which covers all forms of exploration including drilling; and the production licence, which covers development and exploration. Royalty is generally shared between State and Commonwealth Governments on a 60 : 40 basis; however, overriding royalty is payable to the State under certain conditions. Mineral royalty receipts of a government under these Acts are included in the table on page 397.

AREAS OCCUPIED UNDER PETROLEUM EXPLORATION AND DEVELOPMENT TITLES

Year (31 December)	*N.S.W.*	*Vic.*	*Qld*	*S.A.(a)*	*W.A.*	*Tas.*	*N.T.(a)*	*Total*
				ON-SHORE AREAS (square kilometres)				
1972 . .	86,728	51,442	1,296,085	567,187	n.a.(*b*)	..	149,530	n.a.
1973 . .	158,164	34,582	692,500	599,293	n.a.(*b*)	16	163,504	n.a.
1974 . .	101,564	20,064	618,600	596,415	n.a.(*b*)	..	152,422	n.a.
1975 . .	44,612	9,704	532,500	290,900	n.a.(*b*)	..	127,040	n.a.
1976 . .	30,000	18,553	633,563	257,000	n.a.(*b*)	..	76,503	n.a.
				OFF-SHORE AREAS (5 minute blocks) (*c*)				
1972 . .	503	1,178	2,918	3,089	10,171	1,498	3,535	22,892
1973 . .	433	1,178	2,918	3,089	9,828	1,498	4,283	23,227
1974 . .	53	939	2,221	2,685	7,138	475	3,485	16,996
1975 . .	..	529	1,954	1,398	2,231	256	2,642	9,010
1976 . .	..	161	1,954	400	2,643	n.a.	689	n.a.

(*a*) At 30 June. (*b*) Available only in terms of 5 minute blocks of which there were 8,036 at 31 December 1972, 7,260 at 31 December 1973, 5,408 at 31 December 1974, 1,755 at 31 December 1975, and 1,219 at 31 December 1976. (*c*) Area bounded by 5 minutes of latitude and 5 minutes of longitude; figures include partial blocks.

Mineral royalties

The collection by governments of royalties for the production of minerals within their area of authority is an internationally-accepted practice. In Australia, the responsibility for mineral royalties is largely a State concern, and all States currently collect some form of mineral royalty payments. In the past, most States have relied on an established system of standard rates which were uniform for all producers of any particular mineral in the State concerned. These charges were either a fixed monetary amount per tonne (e.g. 5c per tonne on gypsum mined in New South Wales) or an *ad valorem* royalty (e.g. 1.5 per cent of gross value of gold produced in New South Wales).

In recent years there has been an important basic change in the system of establishing royalty commitments, and it is now quite common for State Governments to negotiate special royalty rates with companies which are seeking mineral leases for large scale developments. These royalty rates may vary, depending on whether production is for export or for domestic processing. The rates for a particular mineral may also vary between producers. Important examples of this type of royalty agreement are the iron ore development agreements in Western Australia and coal development agreements in Queensland. Mineral royalties received by Governments in recent years are shown in the table below.

MINERAL ROYALTY RECEIPTS: GOVERNMENTS
($'000)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
New South Wales(*a*)	10,237	9,592	13,496	37,864	32,660
Victoria(*b*)	16,875	18,025	23,922	26,657	29,894
Queensland(*a*)	3,805	3,525	4,319	34,863	36,758
South Australia	1,821	1,807	1,944	1,999	2,310
Western Australia	25,247	27,666	33,615	39,385	43,111
Tasmania(*c*)	489	498	506	503	710
Northern Territory	634	910	(*d*)242	(*d*)99	(*d*)545
Commonwealth Government(*e*) .	7,567	7,896	10,786	12,172	13,457
Total	**66,676**	**69,921**	**88,831**	**153,543**	**159,445**

(*a*) Includes royalty on sand and gravel from Crown lands. (*b*) Includes royalty on brown coal paid by State Electricity Commission and royalties received under the *Petroleum* (*Submerged Lands*) (*Royalty*) *Act* 1967. (*c*) Includes rent and fees from mineral lands and royalties on iron ore. (*d*) Excludes Aboriginal Benefits Trust Fund royalties from mining operations for which details are not available. (*e*) Includes royalties received under the *Petroleum* (*Submerged Lands*) (*Royalty*) *Act* 1967.

Control of Exports

The Commonwealth Government maintains export controls over certain metals, petroleum and petroleum products, and all raw and semi-processed minerals. A primary objective of the controls is to protect the national interest in the sale and export of Australia's minerals by assisting in the achievement of fair and reasonable market prices. Other objectives are to ensure adequate supplies to domestic industry and to meet international and strategic obligations.

The export controls are administered under the authority of the Customs (Prohibited Exports) Regulations. These regulations provide that the exportation from Australia of the minerals subject to export control is prohibited unless approval in writing is issued by the Minister for National Resources or an authorised person.

Joint Coal Board

The Joint Coal Board was established in 1946 under joint legislation of the Commonwealth Government and of the State of New South Wales to carry out special administrative functions in regard to the New South Wales black coal mining industry. In summary, the Board's functions are:

(i) to ensure that coal is produced in the State of New South Wales in such quantities and with such regularity as will meet requirements throughout Australia and in trade with other countries;

(ii) to ensure that the coal resources of the State are conserved, developed, worked and used to the best advantage in the public interest;

(iii) to ensure that coal produced in the State is distributed and used in such manner, quantities, classes and grades, and at such prices as are calculated best to serve the public interest and secure the economical use of coal and the maintenance of essential services and industrial activities; and,

(iv) to promote the welfare of workers engaged in the coal industry in the State.

Queensland Coal Board

The Queensland Coal Board has functions similar to those of the Joint Coal Board. It also carries out research and sampling tests of Queensland coals. It makes funds available to colliery proprietors for equipment and makes grants and/or loans for the provision of amenities for employees and for communities in coal mining districts. The price fixing of coal sold within Queensland is another important function.

Australian Atomic Energy Commission

During 1953, legislation was enacted to set up an Atomic Energy Commission to be responsible, in an overall sense, for the production and utilisation of uranium in Australia. This Act, the *Atomic Energy Act* 1953, superseded the *Atomic Energy (Control of Materials) Act* 1946, but retained a provision of that Act which provided for the control of substances which could be used for production or use of atomic energy.

The functions of the Commission fall under two main headings: firstly, it is responsible for undertaking and encouraging the search for and mining of uranium and is empowered to co-operate with the appropriate authorities of the States in connection with these and related matters: secondly, it is authorised to develop the practical uses of atomic energy by constructing and operating plant for this purpose, carrying out research and generally fostering the advancement of atomic energy technology. The Commission operates under the direction of the Minister for National Resources.

Government assistance

The Commonwealth Government and the various State Governments provide assistance to the mineral industry in a variety of ways. The main forms of assistance are discussed below.

Commonwealth Government assistance

Assistance provided by the Commonwealth Government takes the form of income taxation concessions, subsidies, bounties, and technical assistance, mainly through the work of the Bureau of Mineral Resources and the Commonwealth Scientific and Industrial Research Organization.

Income taxation concessions. Income derived from mining principally for gold in Australia is exempt from tax. The exemption is also available in respect of income derived from mining principally for gold and copper if the value of the gold obtained is not less than 40 per cent of the value of the total output.

Special deductions for capital expenditure incurred in the discovery and mining of petroleum (including natural gas) are allowable to a petroleum mining enterprise engaged in these operations in Australia. Capital expenditure allowable to petroleum mining enterprises includes, broadly, the costs of exploratory surveys, drilling and well-head plant; of the liquefaction of natural gas; and of access roads and expenditure on housing and welfare. The enterprise is entitled to these deductions against income from any source. While the special deductions for expenditure are deductible immediately against the net income of the enterprise, the deductions for capital expenditure on development are allowable over the life of the oil or gas field or over twenty-five years, whichever is the lesser, on a reducing balance basis.

An enterprise mining or prospecting for minerals other than petroleum and gold may also be allowed special deductions for capital expenditure. Broadly, allowable capital expenditure includes expenditure on exploration and prospecting; preparation of a site for extractive mining operations; buildings; other improvements and plant necessary for those operations; access roads; certain treatment plant; and housing and welfare.

The allowable capital expenditure of a general mining enterprise, other than costs of exploration, may be deducted against income from any source over the life of the mine, or over five years, whichever is the lesser. Expenditure incurred by a mining enterprise in exploring for general minerals is allowable as an immediate deduction against net income derived from mining operations. Annual deductions for depreciation on petroleum mining plant or general mining plant may be allowed in lieu of spreading the cost over the life of the oil field or mine. The cost of exploration plant may also be deducted under the depreciation provisions of the law. The investment allowance scheme may permit a deduction at the rate of 40 per cent of the cost of certain new plant in its initial phase, or at 20 per cent in its second phase.

Special deductions are allowable for capital expenditure incurred on certain transport facilities used primarily and principally in relation to minerals mined in Australia for the transport of raw minerals and certain specified products obtained from the processing of such minerals, or for transporting petroleum between the oil or gas field and a refinery or other terminal. The special deduction applies to expenditure incurred on a railway, road, pipeline or similar transport facility and on certain port facilities or other facilities for ships. Allowable expenditure on transport facilities is deductible in equal annual instalments over a period of ten or twenty years at the option of the mining enterprise.

Petroleum search subsidy. The petroleum search subsidy scheme, introduced in 1957, was terminated on 30 June 1974. For details *see* Year Book No. 61, pages 936–7.

Pricing of Australian crude oil. In August 1977, the Commonwealth Government announced new arrangements in the pricing, allocating, and levying arrangements of crude oil. These will take the price of indigenous crude oil from presently known fields in the direction of import parity. This will be achieved through a uniform method of price determination. The new scheme, which took effect from 17 August 1977, applies to each known field in Australia.

Producers receive the import parity price for a specified part of their production. Import parity is received for either the first 6 million barrels of oil produced from each field per annum, or for a proportion of production per annum which will be increased over time according to a specified schedule, whichever is the greater in any particular case. The schedule is 10 per cent from 17 August 1977 until the end of the 1977-78 financial year, rising to 20 per cent for the financial year 1978-79, 35 per cent for 1979-80 and 50 per cent for 1980-81. For all additional production from each field or new development, the producers receive the price which was current up to the time of the introduction of the new arrangements, i.e. $2.33 per barrel in the case of the Bass Strait fields, and $2.88 per barrel in the case of the Barrow Island field. All production from the Moonie and Alton fields and other small fields will, in practice, receive import parity prices, as the output from those fields is well below 6 million barrels per annum.

The Government will review the position before June 1981 to decide the rate at which the further progression to full import parity should take place for presently known fields. Oil from fields discovered after 14 September 1975 will continue to receive full import parity.

The import parity price will be set every six months by the Commonwealth Government and will be calculated on the basis of the price of Arabian light oil at the nearest refinery port, adjusted to allow for an appropriate quality differential. This differential will take account of the suitability of indigenous crude oil for the local market. For the period until 31 December 1977, the import parity price is set at $13.00 per barrel.

Payments to producers of phosphate fertilisers. The *Phosphate Fertilisers Bounty Act* 1963 provides for a bounty to be paid on phosphatic substances produced and sold in Australia as a fertiliser. Phosphatic substances used as a supplement to stock food are also regarded as being used as a fertiliser. Bounty is payable at the rate of $12 per tonne in respect of superphosphate where the available phosphorus content is not less than 8.5 per cent or more than 8.9 per cent by weight. Outside this range, bounty is payable at $138 per tonne of the available phosphorus content of the substance. The intention of the Act is to assist consumers of phosphate fertilisers (primary producers). The Act expires on 30 June 1982.

Bureau of Mineral Resources, Geology and Geophysics. The functions of BMR are as follows:

(i) as a primary function, to obtain, study, publish and provide basic geological and geophysical information necessary for the exploration and development of the nation's mineral resources (this to be done, where appropriate, in co-operation with State and Territorial authorities);

(ii) to undertake experimental studies and research into geology and geophysics in order to support the function of obtaining basic information;

(iii) to make basic investigations of the earth's magnetic and gravitational fields and in seismology and vulcanology;

(iv) to complement the work of the State and Territorial authorities by undertaking geological and geophysical investigations into the occurrence and distribution of underground water;

(v) to undertake geological and geophysical investigations on behalf of other Commonwealth Government Departments and authorities including the provision of resident staff by arrangement with the Territories;

(vi) to obtain basic information on, and review the mineral resources of Australia and its Territories; to study the various sectors of the mineral industry both in the national and international spheres; and to publish and provide information about the mineral industry;

(vii) to undertake such investigations in mining engineering and petroleum technology as are relevant to (i) and (vi) above;

(viii) to prepare advice for Government on the mineral industry, including the exploration and development of mineral resources in the national interest;

(ix) when directed by Government, to administer schemes for the assistance of sectors of the mineral industry and to undertake special mineral projects.

BMR comprises five branches under the Director: Operations, Mineral Resources, Geological, Geophysical, and Petroleum Exploration. The Operations Branch consists of four sections: Planning and Co-ordination, Publications and Information, Automatic Data Processing Applications and Administrative. It carries out central office functions, including planning and control of program, assessment of results, co-ordination of activities, liaison, distribution of information and provision of ADP services. The Mineral Resources Branch comprises the sections Mineral Economics and Mining Engineering and is concerned largely with those aspects of BMR's work which involve studies of the mineral industry as a whole, including the assessment of Australia's mineral resources and the preparation of advice and reviews for the Government, industry and the public. The Geological and Geophysical Branches are responsible for the principal field activities of BMR and the operation of observatories, while the Petroleum Exploration Branch is concerned with the technical administration of the *Petroleum (Submerged Lands) Act* 1967 and the assessment of sedimentary basins in Australia and its Territories. The establishment of BMR is 609 officers (at 30 June 1977), including 261 professional officers (geologists, geophysicists, chemists, engineers and mineral economists).

BMR maintains laboratories in Canberra engaged on geochemical, geochronological and petroleum technological studies and basic research into the design and testing of geophysical equipment. It also maintains geophysical observatories at Kowen Forest (Australian Capital Territory), Mundaring (Western Australia), Mawson (Antarctica), and Macquarie Island. The geophysical observatories are engaged in magnetic, ionospheric, and seismic investigations and are base stations for field operations.

State Government assistance

In addition to free assays and determinations of rocks and minerals carried out for prospectors by the Mines Departments of the States and Territories, technical officers of these departments provide advice to the mining and allied industries where required, carry out field examinations of mining prospects, advise on exploration and development, select sites for water supply, and generally give a free technical service to the mining industry.

New South Wales. The State Mines Department renders scientific, technical and financial assistance to the mining industry. Grants are made to cover up to half the cost of prospecting and drilling operations. These grants are repayable if sufficient pay minerals are discovered or if certain other conditions are met. A quantity of equipment is also available for hire in several localities. The Department has itself undertaken a program of contract drilling to investigate the existence of mineral deposits in the State (including the testing and proving of coal resources). Expenditure on financial assistance in 1975–76 amounted to $906,230, including $535,625 on the Department's own drilling program.

Victoria. The Department of Minerals and Energy conducts geological and mineral surveys and produces geological maps, and issues scientific and technical reports thereon. Extensive rotary, percussion and auger drilling operations are carried out and, in conjunction with these, sedimentary basin studies are made to evaluate petroleum, mineral and groundwater potential. A comprehensive library and a geological museum are maintained, and a core library retains cores and cuttings from drilling operations. The administration of petroleum, pipeline, mining and extractive industry legislation ensures that petroleum exploration and production (both on-shore and off-shore), mining and quarrying are carried on in a safe and effective manner. Technical and drilling assistance and loans or grants are available for mineral exploration and prospecting and for approved development operations. Six stamp batteries provide an ore crushing service to enable test crushings to be made at nominal cost. Information is available on mining law and mineral statistics. Assays of ores, analytical services, advice on metallurgical treatments, industrial pollution and chemical problems are available, together with information on the manufacture, handling and use of explosives and inflammable liquids. Financial assistance is available to municipalities to reclaim mine-damaged land in areas where a reclamation committee recommends such action.

Queensland. The Department of Mines provides assistance to mining by way of geological services, grants for construction and maintenance of roads in mining areas, repayable advances or subsidies for mine development, hiring of equipment, and assistance to prospectors. The Department maintains a concentration plant for tin ores at Irvinebank, an assay office at Cloncurry and diamond drilling plants in various parts of the State. The Queensland Coal Board carries out research and sampling tests of Queensland coals. It also makes funds available to colliery proprietors for equipment and makes grants and/or loans for the provision of amenities for employees and for communities in coal mining districts.

South Australia. The Department of Mines provides the following services and facilities to the mineral industry: drilling and testing of mineral deposits; geophysical investigation; well logging; development of sub-surface water supplies for farming, pastoral, irrigation, and mining purposes; geological examination of mineral deposits, ground water supplies, dam foundation and drainage problems; and publication and issue of geological bulletins and maps. It also provides, through the Australian Mineral Development Laboratories, facilities for chemical, metallurgical, analytical and assay investigations, testing and treatment of ores and minerals, and petrographic, mineragraphic and radiometric determinations. Pilot scale metallurgical and chemical treatment plants are maintained and operated for the development of mineral extraction processes.

Western Australia. Prospectors receive assistance of either $15 or $17.50 a week according to the prospecting locality. North of the 26th parallel and within a defined area south of this lying largely outside the agricultural areas, assistance is given to the extent of $17.50 a week. In the remainder of the State prospectors receive $15 a week. Provision is also made for the supply of some tools required for prospecting. There are sixteen State batteries operating intermittently throughout the goldfields for the treatment of ore from prospectors and small mine owners at a nominal charge. A cartage subsidy is also granted to such operators sending gold and lead ores to State batteries for treatment. Provision is made for loans to mine-owners who require assistance to develop mines.

Tasmania. The Department of Mines provides financial assistance to mining lessees for the purchase of plant and machinery; for sinking, repairing or de-watering of shafts; for construction of dams and water races; for testing and proving a deposit of any mining product; for developmental work; and for diamond and other types of drilling. The Department has available for hire percussion and diamond drills for exploration, as well as a complete plant for small shaft sinking and tunnelling. Other assistance is rendered to the industry through geological and engineering advice, ore-dressing research into metallurgical recoveries, and the selection and design of treatment plant.

Northern Territory. To encourage the development of the mining industry the Mines Branch of the Department of the Northern Territory operates two batteries for the treatment of ores for miners. The Tennant Creek Battery is treating parcels of gold ore, while the Mount Wells Battery is crushing parcels of gold, tin, lead, copper and wolfram ore, and carrying out experimental work on more complex ores. The crushing charges are subsidised by the Government. Mining plant such as drills, compressors, pumps, and small hoists are available for hire to prospectors. Financial assistance is available to prospectors for mine development such as shaft sinking, driving, rising or winzing, and for cartage subsidies. Roads and water supply services are provided and maintained for mines under active development throughout the Northern Territory.

The Northern Territory Geological Survey undertakes geological and geophysical investigations including some engineering geology projects, and is also available to assist with the evaluation of individual mineral occurrences for prospectors and exploration companies. Technical libraries and collections of drill cores and cuttings are maintained in Darwin, Alice Springs and Tennant Creek.

Research

Research investigations into problems of mining, ore-search, ore-dressing and metallurgy are conducted by Government bodies, by universities, by private enterprise, and by combined efforts of these bodies. A summary of their functions follows. (For further information on research *see* Chapter 25 Science and Technology).

Australian Atomic Energy Commission

The Australian Atomic Energy Commission conducts research at its laboratories at Lucas Heights in Sydney on the development of nuclear power, including research on nuclear materials and on metals and ceramics used for nuclear power.

The Australian Mineral Development Laboratories

Technical consultation, contract research and process design for the mineral and associated industries is undertaken by The Australian Mineral Development Laboratories (Amdel) at Adelaide. This organisation is controlled by a council comprising representatives of the mineral industry, the South Australian Government and the Commonwealth Government. Extensive facilities are available in the fields of analytical chemistry, mineralogy and petrology, chemical metallurgy and mineral engineering, operations research/computer services and materials technology. Both long and short term applied research is carried out and all investigations are conducted on a strictly confidential basis. Services in the field of pollution and environmental control are also available through the Amdel group, Amdel (Aspect).

The Baas Becking Geobiological Research Laboratory

In 1965, the Baas Becking Geobiological Research Laboratory was established in the Bureau of Mineral Resources building in Canberra under the joint sponsorship of the Commonwealth Scientific and Industrial Research Organization, the Bureau of Mineral Resources, and the Australian Mineral Industries Research Association (*see* Research by private enterprise, page 403).

Much of the biological research has involved studies on the biology and biochemistry associated with mineralisation processes. The expertise gained is applied to *in situ* examinations of sulphide mineralisation in carbonate-rich sediments. On the geological side, research is co-ordinated with the field programs of the Bureau of Mineral Resources, and includes studies on the McArthur and Georgina Basins and the Adelaide Geosyncline.

Bureau of Mineral Resources, Geology and Geophysics

The Bureau of Mineral Resources is the largest geoscience research organisation in Australia. Its work is directed towards an integrated study of the origin, composition and structure of the rocks forming the Australian continent to the lower limits of the continental slope, particularly as these affect the genesis and distribution of mineral deposits. The main effort is in field research supported and complemented by laboratory and office studies. BMR's activities include:

- geological, geophysical, and geochemical surveys to provide the basic information for further studies;
- compliation, review, and synthesis of information on and detailed investigations of sedimentary basins and metallogenic provinces, leading to an understanding of their origin and history, and to assessment of their prospectiveness;
- studies of specific commodities, including research into the occurrence and origin of their deposits, assessment of potential for new discoveries, resource inventories, and market trends;
- engineering geology, urban geology and hydrogeological investigations;
- maintenance of seismological and magnetic observatories, and related studies;
- assessment of geophysical techniques in Australian conditions and development of new techniques and equipment;
- fundamental geoscience research with an orientation to the activities listed above; and
- provision and dissemination of the results of BMR's work and information on the geosciences generally.

For details of the functions of the Bureau of Mineral Resources, Geology and Geophysics, *see* page 400.

Commonwealth Scientific and Industrial Research Organization

Mineral research by the Commonwealth Scientific and Industrial Research Organization is undertaken mainly in the Minerals Research Laboratories comprising the Divisions of Chemical Engineering, Mineral Chemistry, Mineralogy, and Mineral Physics and Process Technology. Major laboratories are located at Clayton (Vic.), Port Melbourne, Sydney and Perth. Current research program objectives and sub-program titles are:

Exploration techniques. To improve and develop procedures for locating mineral deposits (geochemistry, geophysics and geological pattern recognition);

Ore deposits. To elucidate the nature, mode of origin and factors controlling the location of economic mineral deposits (regional studies, nickel deposits, mineralising processes, depositional environment, minerological research techniques);

Mining, beneficiation and control. To increase the overall efficiency of mining operations and mineral beneficiation processes (mineral dressing, reactive mineral systems, iron ores, mine roof failures, phosphate ores);

Process metallurgy and engineering. To improve existing technology and initiate new processes in the field of process metallurgy (process development and control, hydrometallurgy, structures and bonding, pyrometallurgy);

Environment. To protect and improve the quality of the human and natural environment (air pollution, solid and liquid wastes, aquatic environment, urban air quality); and

Energy. To support national plans developed to ensure the availability of energy in forms required by consumers and based on indigenous resources (coal utilisation, coal and oil resource characterisation, energy conservation, solar conversion and energy storage and coal utilisation).

The minerals industry provides strong support in the form of co-operative research planning, collaborative investigation of specific projects, and financial grants for appropriate developmental work.

National Coal Research Advisory Committee

The National Coal Research Advisory Committee was established in December 1964 following agreement between the Commonwealth Government, State Governments and private industry for increased applied research in Australia into coal utilisation. This was later extended to cover research into coal winning and beneficiation. Initially, a pool of funds amounting to $520,000 per annum was jointly contributed for the sponsorship of this research. These funds were allocated on the advice of the Committee, whose membership was representative of the contributing groups. This agreement was terminated on 30 June 1969 and a new National Coal Research Advisory Committee was nominated by the Commonwealth Government alone. A sum of up to $260,000 per year for up to three years was set aside by the Government for allocation on the advice of this Committee.

As from 30 June 1972, the scheme of assistance to coal research was extended for a further five years, with yearly allocations of $260,000. In 1974–75 the yearly allocation was increased by $100,000 to $360,000 for the specific purpose of initiating an 'oil-from-coal' research program in Australia. The allocation of $360,000 was maintained in 1975–76 and increased to $395,000 in 1976–77.

The major beneficiary under this scheme is the Australian Coal Industry Research Laboratories; other beneficiaries are University Departments.

The functions of the Committee are:

to keep under review all coal research carried on throughout Australia and overseas, in relation to conservation, winning, beneficiation and utilisation;

to reach conclusions on scientific, technical and economic grounds as to the directions in which this research in Australia should be strengthened; and

to review annually all relevant research programs in Australia, and to recommend to the Minister for National Resources those programs that should be supported, and the amount of financial contributions which should be made to each of them from the funds provided.

University Research

The various universities in Australia carry out research into various aspects of the mineral industry such as geology, ore mineralogy and genesis, mining techniques, mineral processing, extractive metallurgy, and materials and metals technology.

Research by private enterprise

Most large mining and smelting companies have laboratories dealing with their own individual problems. Private industry formed the Australian Mineral Industries Research Association in 1959 to provide industry with representation in the management of the Australian Mineral Development Laboratories. The Association now finances research work into geology, mining and mineral processing at Universities, the CSIRO and the Australian Mineral Development Laboratories. Membership of the Association at 30 June 1977 was: full members 44, associate members 20, registered divisions 11. Expenditure on research projects during the year 1976–77 was $429,403.

International relations

Because Australia is a large supplier of certain minerals to the rest of the world, and because the welfare of the domestic industry depends to a large extent on the maintenance of a high level of exports, international relations are of considerable importance to the industry, and the Commonwealth Government takes an active role in international consultations and discussions relating to minerals. The most important international commitments are discussed below.

International Tin Agreement

The First International Tin Agreement (of the post-war period) was in operation for five years from 1 July 1956 to 30 June 1961. This Agreement was subsequently replaced by the Second, Third and Fourth International Tin Agreements, which came into force on 21 February 1962, 21 March 1967 and 1 July 1971 respectively. Details of the Second and Third Agreements are given in Year Book No. 57, pages 911–12. Details of the Fourth Agreement are given in Year Book No. 61, page 942.

Australia has signed and ratified the Fifth International Tin Agreement which came into operation on 1 July 1976 for a period of 5 years. Australia joined the Fourth and Fifth Agreements as a 'producing' (i.e. exporting) member, whereas in the first three agreements Australia's status had been that of a 'consuming' (i.e. importing) member.

The objectives and provisions of the present Agreement are essentially the same as for its predecessors. The International Tin Agreement establishes floor and ceiling prices for tin and, by the medium of a buffer stock and remedial trading, aims at confining the prices within these limits. Producing countries are required to contribute to a buffer-stock equivalent in cash or tin up to 20,000 tonnes of tin metal, which is used to buffer short-term fluctuations in the world price market. In addition, consuming countries may also make contributions in either cash or tin metal up to the equivalent of 20,000 tonnes of tin metal. In the event of persistent market disequilibrium through causes beyond the control of the buffer stock mechanism, the agreement also provides for the regulation of exports and stocks to stabilise the market.

The International Tin Agreement is operated by the International Tin Council, which is made up of the following governments: *Producers* -Australia, Bolivia, Indonesia, Malaysia, Nigeria (Federal Republic of), Thailand, Zaire (Republic of); *Consumers*—Austria, Belgium-Luxembourg, Bulgaria, Canada, Czechoslovakia, Denmark, France, Germany (Federal Republic of), Hungary, India, Ireland (Republic of), Italy, Japan, Netherlands, Poland, Romania, Spain, Turkey, United Kingdom, United States of America, Union of Soviet Socialist Republics and Yugoslavia. The producing countries hold a total of 1,000 votes, distributed so that each country receives five initial votes and an additional number corresponding to its percentage as laid down by the Agreement. The consuming countries hold a total of 1,000 votes also distributed so that each country receives five initial votes and an additional number proportionate to quantities consumed. The allocation of votes in each category is periodically reviewed.

International Lead-Zinc Study Group

With the cessation of stockpile buying of lead and zinc by the United States Government in 1958, world producers were faced with the prospect of a serious imbalance between world supply and demand for these metals. To meet this problem, a series of meetings of interested governments was held at which Australia was represented. These meetings culminated in the formation of the International Lead-Zinc Study Group which was established in January 1960. The Study Group comprises the following Governments: Algeria, Australia, Austria, Belgium, Bulgaria, Canada, Czechoslovakia, Denmark, Finland, France, Germany (Federal Republic of), Hungary, India, Ireland (Republic of), Italy, Japan, Mexico, Morocco, Netherlands, Norway, Peru, Poland, South Africa (Republic of), Spain, Sweden, Tunisia, Union of Soviet Socialist Republics, United Kingdom of Great Britain and Northern Ireland, United States of America, Yugoslavia and Zambia. The Group provides opportunities for inter-governmental consultations on international trade in lead and zinc and for studies of the world situation in lead and zinc having regard especially to the desirability of providing continuous, accurate information regarding the supply and demand position and its probable development.

MINERAL INDUSTRY STATISTICS

Statistics in the following pages refer mainly to the mining industry, mineral production, mineral exploration, mineral processing and treatment, and overseas trade.

Mining industry statistics

This section contains statistics of the mining industry in Australia obtained from the annual mining censuses. Commencing with the year ended June 1969, the annual mining census has been conducted on an integrated basis with the annual census of manufacturing and with the periodic electricity and gas and retail and wholesale trade censuses; it is therefore on a different basis to those of earlier years.

Further information regarding these differences and mining industry statistics for years prior to 1968–69 is contained in Year Book No. 57, and earlier issues.

The table below shows key items of data for Australia for 1975–76 and summary data for 1972–73 to 1974–75.

MINING ESTABLISHMENTS: SUMMARY OF OPERATIONS BY INDUSTRY CLASS

Industry class ASIC Code *(a)*	*Description*	*Number of establishments operating at end of June*	*Persons employed at end of June(b)* Males	Females	Persons	*Wages and salaries (c)*	*Turnover*	*Stocks at 30 June* 1975	1976	*Purchases, transfers in and selected expenses*	*Value added*	*Fixed capital expenditure (outlay on fixed tangible assets less disposals)*
1975–76		No.	No.	No.	No.	$'000	$'000	$'000	$'000	$'000	$'000	$'000
	Metallic minerals—											
1101	Bauxite	6	1,591	176	1,767	20,092	n.a.	12,950	13,364	n.a.	142,426	26,857
1102	Copper (including copper-gold)	21	5,027	295	5,322	70,747	216,322	29,238	28,286	75,571	139,798	27,185
1103	Gold	41	1,238	46	1,284	14,847	37,427	9,079	5,570	9,845	24,073	9,651
1104	Iron ore	27	6,912	1,009	7,921	93,795	804,741	62,086	86,010	289,964	538,701	65,747
1105	Mineral sands	25	3,114	253	3,367	33,979	150,611	28,794	42,717	61,383	103,151	34,671
1106	Nickel	8	3,340	233	3,573	37,175	199,790	10,673	12,095	76,613	124,599	31,910
1107	Silver-lead-zinc	9	6,246	258	6,504	73,334	262,881	45,466	66,840	71,509	212,746	22,813
1108	Tin	43	1,342	84	1,426	12,782	49,603	6,991	8,359	18,695	32,276	4,742
1109	Metallic minerals n.e.c.	9	1,328	139	1,467	16,327	n.a.	10,846	18,614	n.a.	30,937	25,459
11	*Total metallic minerals*	*189*	*30,138*	*2,493*	*32,631*	*373,080*	*1,972,174*	*216,122*	*281,853*	*689,198*	*1,348,707*	*249,035*
	Coal and crude petroleum (including natural gas)—											
1201	Black coal	127	22,201	418	22,619	289,183	1,381,585	72,807	126,989	452,349	983,417	159,624
1202	Brown coal	4	2,830	108	2,938	34,899	568,029	19,924	23,887	60,960	511,032	88,629
1300	Crude petroleum (including natural gas)	9										
	Construction materials—											
1401	Sand and gravel	321	2,046	200	2,246	19,227	92,732	4,277	6,133	36,471	58,117	9,231
1402	Crushed and broken stone	312	3,935	336	4,271	40,283	176,620	18,291	23,312	74,493	107,148	14,543
1403	Dimension stone and other construction materials n.e.c.	56	154	13	167	736	2,850	389	356	1,134	1,683	190
14	*Total construction materials*	*689*	*6,135*	*549*	*6,684*	*60,246*	*272,203*	*22,957*	*29,802*	*112,099*	*166,949*	*23,964*
	Other non-metallic minerals—											
1501	Limestone	49	646	11	657	6,850	28,153	1,853	2,049	13,797	14,553	1,511
1502	Clays	90	231	19	250	1,399	12,559	1,605	1,728	6,800	5,883	587
1503	Non-metallic minerals n.e.c.	110	1,687	143	1,830	16,866	81,090	11,005	12,271	44,642	37,714	24,931
15	*Total other non-metallic minerals*	*249*	*2,564*	*173*	*2,737*	*25,115*	*121,803*	*14,462*	*16,048*	*65,239*	*58,150*	*27,028*
	Total mining (excluding services to mining) 1975–76	**1,267**	**63,868**	**3,741**	**67,609**	**782,522**	**4,315,793**	**346,272**	**478,579**	**1,379,485**	**3,068,254**	**548,280**
	1974-75	1,315	65,447	3,675	69,122	675,442	3,725,629	242,290	341,432	1,155,702	2,669,069	496,199
	1973–74	1,315	61,006	3,050	64,056	481,006	2,798,062	216,389	242,586	828,164	1,996,096	338,573
	1972 73	1,330	60,140	2,920	63,060	402,894	2,265,129	210,951	211,775	668,651	1,597,301	322,930
	1971–72	1,410	60,222	2,957	63,179	373,999	1,994,261	165,244	211,178	611,888	1,428,307	482,611

(*a*) Australian Standard Industrial Classification. (*b*) Includes working proprietors. (*c*) Excludes amounts drawn by working proprietors.

Mining accidents

Particulars of numbers of persons killed and injured in accidents in mines and associated treatment plants are recorded by State Mines Departments. Numbers injured are not reported on a uniform basis in all States, as varying criteria are used in determining what constitutes injury. A table setting out mining accidents by States is shown below.

MINING ACCIDENTS(*a*)

	Metal mining		*Fuel mining*		*Construction material quarrying(b)*		*Non-metal (excluding fuel) mining*		*Total mining and quarrying*	
	Number of casualties		*Number of casualties*		*Number of casualties*		*Number of casualties*		*Number of casualties*	
	Killed	*Injured*	*Killed*	*Injured*	*Killed*	*Injured*	*Killed*	*Injured*	*Killed*	*Injured*
1975–76—										
New South Wales	3	221	4	61	1	14	..	18	8	314
Victoria	..	..	..	43	1	(*c*)58	1	(*c*)1	2	102
Queensland	(*d*)2	(*d*)145	(*d*)18	(*d*)253	..	(*d*)5	..	(*d*)4	(*d*)20	(*d*)407
South Australia	..	29	..	11	..	39	3	7	3	86
Western Australia	(*c*)11	(*c*)482	..	84	..	13	..	17	11	596
Tasmania	2	163	..	3	..	3	..	..	2	169
Northern Territory	..	24	..	..	..	..	..	..	..	24
Australian Capital Territory	..	..	..	..	(*b*)	(*b*)	..	..	(*b*)	(*b*)
Australia(*b*)(*c*)	**18**	**1,064**	**22**	**455**	**2**	**132**	**4**	**47**	**46**	**1,698**
1974–75	22	1,130	17	477	3	84	1	50	43	1,741

(*a*) *See* text regarding comparability between States. (*b*) Mining accident data for construction material quarrying in the A.C.T. are not available. (*c*) These figures include some accidents in the mineral processing industry, and, in Western Australia, in electricity generating plants at the mine site. (*d*) Year ended 31 December 1975.

Mineral production

This section contains details of the output (quantity and value) of minerals produced and the metallic content of ores, concentrates, etc.

The statistics shown have been derived from data collected in the annual mining census and in returns to the various State Mines Departments, supplemented in some cases by information made available by the Department of National Resources and from other sources.

For details of the scope of mineral production statistics and their relation to mining industry statistics, and the principles for measuring the output of minerals, *see* Year Book No. 61 and earlier issues.

Quantity of minerals produced

The following tables show particulars of the quantities of minerals produced during 1975–76 and earlier years, together with details of the aggregate quantity of each metal, metallic oxide or elements contained in the various metallic minerals produced.

QUANTITY OF MINERALS PRODUCED AND METALLIC CONTENTS OF ORES CONCENTRATES ETC.

Mineral		*1971-72*	*1972-73*	*1973-74*	*1974-75*	*1975–76*
METALLIC MINERALS						
Antimony concentrate	tonnes	611	1,440	1,346	1,555	1,649
Antimony content	"	338	930	860	990	1,089
Antimony ore	tonnes	(*a*)	(*a*)	(*a*)	(*a*)	507
Antimony content	"	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)
Bauxite	'000 tonnes	13,697	14,702	18,545	22,205	19,755
Alumina (Al_2O_3) content	"	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)
Beryllium ore	tonnes	61	118	180	6	. .
Beryllium oxide (BeO) content	mtu	678	1,386	2,123	72	. .
Bismuth concentrate	tonnes	1,281	1,609	2,701	4,388	4,829
Bismuth content	kg	325,474	343,349	444,473	690,488	817,175
Copper content	tonnes	114	157	400	575	695
Gold content	'000 grams	2,239	2,026	956	974	729
Selenium content	tonnes	36	31	5	. .	. .
Silver content	'000 grams	436	520	274	386	286
Copper concentrate	tonnes	636,018	824,772	938,235	894,062	788,703
Copper content	"	159,239	186,763	233,371	220,257	202,865
Bismuth content	kg	22,353	12,100	580,664	484,060	34,478
Gold content	'000 grams	2,985	2,463	3,402	2,522	2,000
Lead content	tonnes	341	633	754	599	507
Palladium content	'000 grams	. .	. .	. .	. .	. .
Platinum content	"	. .	. .	. .	. .	. .
Silver content	"	32,342	38,343	40,900	39,000	32,232
Zinc content	tonnes	994	2,058	2,324	1,800	1,655
Copper ore	tonnes	18,890	12,504	23,252	15,336	4,364
Copper content	"	1,261	946	1,407	996	372
Gold content	'000 grams	. .	1	. .	. .	3
Silver content	"	84	. .	. .	18	15
Copper ore for fertilizer	tonnes	152	3,048	1,516	1,000	. .
Copper content	"	7	24	6	8	. .
Copper oxide	tonnes	663	976	861	1,446	2,316
Copper content	"	517	752	663	1,111	1,784
Copper precipitate	tonnes	247	170	173	44	68
Copper content	"	179	130	129	32	50
Gold content	'000 grams	. .	. .	. .	. .	. .
Silver content	"	. .	. .	. .	. .	. .
Gold bullion (*b*)	'000 grams	20,762	17,930	13,906	12,903	15,964
Gold content	"	16,179	13,938	10,412	10,022	12,550
Silver content	"	3,769	3,264	2,519	2,014	2,383
Gold ore	tonnes	. .	. .	116	236	294
Gold content	'000 grams	. .	. .	1	2	59
Iron ore (*c*)	'000 tonnes	62,103	74,645	91,508	98,159	92,687
Iron content	"	39,255	47,204	57,801	60,860	58,263
Iron oxide (*d*)	tonnes	66,908	86,569	71,117	62,886	55,758
Lead concentrate	tonnes	(*e*)622,592	(*e*)582,178	563,036	615,212	576,481
Lead content	"	395,214	356,695	345,290	390,848	369,466
Antimony content	"	711	619	574	(*a*)	(*a*)
Cadmium content	"	83	53	47	57	54
Copper content	"	3,603	3,176	2,988	3,679	3,347
Gold content	'000 grams	383	312	276	383	307
Silver content	"	540,465	490,615	497,096	560,391	559,923
Sulphur content	tonnes	56,831	50,826	44,236	51,153	45,362
Zinc content	"	33,922	31,786	29,758	31,127	31,283
Lead-copper concentrate	tonnes	18,025	16,605	19,919	19,952	19,480
Lead content	"	5,127	5,034	5,138	4,207	4,823
Copper content	"	2,133	1,828	2,350	2,652	2,656
Gold content	'000 grams	1,260	1,038	972	913	986
Silver content	"	49,602	49,357	53,034	45,211	42,780
Sulphur content	tonnes	5,005	4,427	5,673	6,055	5,527
Zinc content	"	2,360	2,333	2,657	2,409	1,942

For footnotes *see* end of table.

QUANTITY OF MINERALS PRODUCED AND METALLIC CONTENTS OF ORES, CONCENTRATES, ETC.—*continued*

Mineral		*1971-72*	*1972-73*	*1973-74*	*1974-75*	*1975-76*
METALLIC MINERALS—*continued*						
Lead ore (*f*)	tonnes	31,284	39,760	32,711	47,562	42,997
Lead content	"	1,774	2,553	1,847	2,613	2,718
Copper content . . .	"	. .	4	. .	. .	. .
Silver content. . . .	'000 grams	2,044	3,480	2,153	2,939	3,503
Zinc content	tonnes	18	63	. .	. .	. .
Lead-zinc middlings . . .	tonnes	20,055	26,553	11,609	10,654	9,483
Lead content	"	4,910	5,733	2,136	2,371	1,745
Antimony content . . .	"	. .	. .	. .	10	9
Cadmium content . . .	"	22	29	22	21	19
Copper content . . .	"	133	175	134	128	114
Gold content	'000 grams	17	23	22	28	25
Silver content. . . .	"	16,746	23,880	15,643	16,842	13,674
Sulphur content . . .	tonnes	4,309	5,515	3,223	3,036	2,702
Zinc content	"	5,373	8,038	4,011	3,359	3,139
Manganese ore—						
Metallurgical grade. . .	'000 tonnes	1,164	1,295	1,619	1,410	1,576
Manganese content . .	tonnes	554,616	624,042	765,146	666,780	765,275
Other grades	"	96	16	17	. .	. .
Manganese content . .	"	28	4	. .	. .	. .
Mineral sands (*g*)—						
Ilmenite concentrate . .	tonnes	(*h*)705,259	(*h*)720,996	(*h*)676,566	(*h*)891,090	(*h*)929,269
Titanium dioxide content .	"	398,243	396,514	337,363	503,582	523,527
Leucoxene concentrate . .	tonnes	12,343	10,465	11,374	17,559	14,821
Titanium dioxide content .	"	11,112	9,336	10,128	15,642	13,082
Monazite concentrate . .	tonnes	5,148	4,534	4,052	3,371	4,766
Monazite content . .	"	4,735	4,148	3,715	3,108	4,392
Rutile concentrate . . .	tonnes	355,675	318,698	308,050	334,205	367,763
Titanium dioxide content .	"	343,378	305,962	295,514	320,496	352,710
Xenotime concentrate . .	tonnes	14	17	10	16	14
Yttrium oxide content . .	kg	3,658	4,318	4,378	4,880	4,200
Zircon concentrate . . .	tonnes	390,515	373,024	347,014	392,751	386,604
Zirconium dioxide content .	"	258,767	247,545	290,519	322,191	316,075
Molybdenite concentrate . .	tonnes	18	. .	8	. .	. .
Molybdenum disulphide . . content	kg	15,676	. .	7,360	. .	. .
Nickel concentrate . . .	tonnes	299,144	268,349	323,142	405,380	471,662
Nickel content . . .	"	35,559	36,104	42,247	49,106	57,307
Cobalt content . . .	"	167	203	109	79	135
Copper content . . .	"	2,590	2,659	3,407	4,449	4,585
Palladium content . . .	kg	. .	. .	71	147	192
Platinum content . . .	"	. .	. .	17	62	79
Nickel ore	'000 tonnes	. .	(*a*)	. .	1,042	1,922
Nickel content	tonnes	. .	(*a*)	. .	(*a*)	23,646
Pyrite concentrate . . .	tonnes	261,481	198,096	239,274	219,066	213,348
Sulphur content . . .	"	120,586	93,839	114,340	104,126	101,352
Gold content	kg	. .	. .	. .	. .	. .
Silver content. . . .	"	. .	. .	. .	. .	. .
Tantalite-columbite concentrate .	kg	162,019	236,831	231,520	178,700	119,970
Tantalite-columbite content .	"	76,217	84,744	91,108	53,734	52,160
Tin content	tonnes	. .	. .	. .	. .	. .
Tin concentrates . . .	tonnes	19,722	22,513	20,040	19,552	19,143
Tin content	"	10,913	11,625	10,518	10,095	9,609
Copper content . . .	"	. .	. .	6	. .	. .
Tantalite-columbite content .	kg	. .	. .	(*a*)	. .	. .
Tin-copper concentrate . .	tonnes	5,187	4,586	3,241	2,506	2,896
Tin content	"	157	129	81	73	76
Copper content . . .	"	977	878	652	522	628

For footnotes *see* end of table

QUANTITY OF MINERALS PRODUCED AND METALLIC CONTENTS OF ORES, CONCENTRATES, ETC.—*continued*

Mineral		*1971-72*	*1972-73*	*1973-74*	*1974-75*	*1975-76*
METALLIC MINERALS—*continued*						
Tungsten concentrates—						
Scheelite concentrate	tonnes	1,842	1,789	1,630	1,672	2,360
Tungstic oxide content	m.t.u.	135,347	131,973	117,100	120,700	167,000
Wolfram concentrate	tonnes	841	761	374	524	641
Tungstic oxide content	m.t.u.	61,025	55,528	25,676	36,862	45,422
Bismuth content	"	..	..	..	..	..
Wolfram ore	tonnes	..	122	..	..	..
Tungstic oxide content	m.t.u.	..	100	..	..	..
Zinc concentrate	tonnes	867,143	865,248	768,753	879,612	839,627
Zinc content	"	454,874	462,717	399,526	457,700	432,661
Cadmium content	"	1,520	1,547	1,361	1,523	1,500
Cobalt content	"	116	107	92	116	103
Copper content	"	1,167	1,226	1,156	1,181	1,200
Gold content	'000 grams	188	201	198	170	204
Lead content	tonnes	13,431	14,360	15,266	15,862	17,405
Manganese content	"	7,711	8,443	5,426	6,146	5,785
Mercury content	kg	483	512	313	86	332
Silver content	'000 grams	54,677	61,023	62,717	62,245	65,072
Sulphur content	tonnes	273,583	324,960	241,868	278,915	268,068
Zinc ore	tonnes	..	..	18,315	33,493	22,851
Zinc content	"	..	..	3,010	11,779	8,583
COAL						
Black coal	'000 tonnes	53,549	59,755	59,344	70,142	69,269
Semi-anthracite	"	..	..	..	..	..
Bituminous	"	50,340	56,444	55,924	65,475	63,967
Sub-bituminous	"	3,208	3,311	3,420	4,667	5,302
Brown coal (lignite)(*i*)	"	19,998	20,922	23,258	24,441	26,711
Brown coal briquettes	"	1,308	1,228	1,164	1,092	946
PETROLEUM (*j*)						
Crude oil	'000 cu m	19,038	20,669	23,096	23,096	23,839
Natural gas	mil. cu m	2,628	3,713	4,360	4,633	5,172
Natural gas condensate(*k*)	cu m	(*a*)	(*a*)	8,181	7,719	6,619
Ethane(*e*)	'000 cu m	3,087	27,436	46,176	63,677	73,208
Liquefied petroleum gases(*l*)—						
Propane	'000 cu m	577	798	1,124	1,026	1,053
Butane	'000 cu m	662	988	930	1,148	1,182
CONSTRUCTION MATERIALS(*m*)						
Sand	'000 tonnes	19,501	21,869	24,684	24,807	23,206
Gravel	"	12,871	14,520	15,982	17,315	14,643
Dimension stone	"	411	288	119	163	169
Crushed and broken stone	"	50,475	51,037	54,803	57,337	53,780
Other	"	26,405	42,113	33,264	33,697	31,826

For footnotes *see* end of table

QUANTITY OF MINERALS PRODUCED AND METALLIC CONTENTS OF ORES, CONCENTRATES, ETC.—*continued*

Mineral		*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*
OTHER NON-METALLIC MINERALS						
Asbestos	tonnes	(*e*) 3,077	32,358	37,651	36,558	57,235
Barite	„	23,750	23,175	6,436	12,013	(*a*)
Carbon dioxide	„	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)
Clays—						
Brick and shale . . .	'000 tonnes	7,872	8,098	9,246	7,844	8,856
Other(*n*)	„	1,207	1,321	1,382	1,311	1,202
Diatomite	tonnes	1,758	4,792	8,313	6,035	1,681
Dolomite	„	390,832	402,312	421,471	411,541	515,094
Felspar (including cornish stone) .	„	2,948	2,916	3,049	4,278	4,123
Fluorspar	„	380	1,700	874	. .	. .
Garnet concentrate . . .	„	525	111	109	. .	1
Gypsum	'000 tonnes	1,011	962	1,193	1,008	912
Limestone (including shell and coral)	„	10,154	10,960	11,312	11,209	10,185
Lithium ores(*o*)	tonnes	1,930	695	1	. .	. .
Lithia (Li_2O) content . .	mtu	8,108	2,828	4	. .	. .
Magnesite, crude . . .	tonnes	18,684	21.822	20,543	36,273	(*a*)
Mineral pigments—red ochre .	„	23	625	608	. .	874
Peat(*p*)	„	4,489	(*a*)	3,747	3,384	(*a*)
Pebbles—for grinding. . .	„	1,927	1,509	1,611	998	1,799
Perlite	„	295	1,834	1,739	3,555	2,136
Phosphate rock	„	2,512	1,494	1,484	35,815	168,601
Pyrophyllite	„	6,972	12,718	11,357	14,264	15,542
Salt	'000 tonnes	3,503	3,671	4,683	5,057	5,350
Silica	„	1,012	1,169	1,385	1,388	1,188
Sillimanite	tonnes	654	654	719	703	567
Talc (including steatite and chlorite)	„	43,997	47,927	63,068	72,072	74,306
Vermiculite	„	171	636	(*a*)	(*a*)	. .

(*a*) Not available for publication. (*b*) Includes alluvial gold. (*c*) Includes iron concentrate. (*d*) For cement manufacture, coal washing. (*e*) Excludes Western Australian production. (*f*) Includes silver-lead ore, silver-lead slimes and lead slag. (*g*) Details relating to rutile-zircon concentrates produced in one State and finally separated in another State are included in separated form in the data of the State of origin. (*h*) Includes Beneficiated Ilmenite. Also includes ilmenite from which titanium dioxide is not commercially extractable. (*i*) Excludes brown coal used for briquette production. (*j*) *Source:* Department of National Resources and State Mines Departments. (*k*) Sales—excludes condensate blended and other petroleum products. (*l*) Excludes refinery production. (*m*) Incomplete, *see* individual States. (*n*) Incomplete owing to difficulties of coverage. (*o*) Used mainly for non-metallic purposes. (*p*) Comprises peat for fertiliser and peat moss.

NOTE. Particulars of the production of uranium concentrate are not available for publication.

CONTENTS OF METALLIC MINERALS PRODUCED

Contents of metallic minerals produced		*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Alumina (Al_2O_3)	'000 tonnes	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)
Antimony	tonnes	1,120	(*a*)	(*a*)	(*a*)	(*a*)
Beryllium oxide (BeO)	mtu(*b*)	678	1,386	2,123	72	..
Bismuth	'000 grams	347,778	355,449	1,025,137	1,238,837	890,703
Cadmium	tonnes	1,625	1,629	1,430	1,601	1,573
Cobalt	,,	283	310	201	1,055	2,026
Copper	,,	171,920	198,718	246,669	235,590	218,296
Gold	'000 grams	23,253	20,002	16,271	15,061	16,901
Iron(*c*)	'000 tonnes	39,255	47,204	57,801	60,860	58,263
Lead	tonnes	420,797	385,008	370,431	416,500	396,664
Manganese(*d*)	,,	562,327	632,485	770,572	672,926	771,060
Manganese dioxide (MnO_2)(*e*)	,,	28	4	..	..	..
Mercury	kg	483	512	313	86	332
Molybdenum disulphide (MoS_2)	,,	15,676	..	7,360	..	..
Monazite	tonnes	4,735	4,148	3,715	3,108	4,392
Nickel	,,	35,559	36,104	42,247	49,106	80,953
Palladium	grams	..	..	71,000	147,000	192,000
Platinum	,,	..	..	17,000	62,000	79,000
Selenium	tonnes	36	31	5	..	..
Silver	'000 grams	700,165	670,482	674,359	709,913	721,544
Sulphur(*f*)	tonnes	460,313	479,567	409,340	443,285	423,011
Tantalite-columbite (Ta_2O_5 + Nb_2O_5)	'000 grams	76,217	84,744	91,108	53,734	52,160
Tin	tonnes	11,070	11,754	10,599	10,168	9,685
Titanium dioxide (TiO_2)	,,	752,733	711,812	679,005	839,720	889,460
Tungstic oxide (WO_3)	mtu(*b*)	196,372	187,601	142,776	157,562	212,422
Yttrium oxide (Y_2O_3)	'000 grams	3,658	4,318	4,378	4,880	4,200
Zinc	tonnes	497,541	506,995	441,286	508,174	479,263
Zirconium dioxide (ZrO_2)	,,	258,767	247,545	290,519	322,229	316,131

(*a*) Not available for publication. (*b*) Metric ton unit (mtu) equals 10 kilograms. (*c*) Excludes iron content of iron oxide not intended for metal extraction. Includes iron contained in iron concentrate. (*d*) Content of metallurgical grade manganese ore and zinc concentrate. (*e*) Content of manganese ore of other than metallurgical grade. (*f*) Sulphur content of pyrite and other minerals from which sulphur is recovered.

NOTE. Particulars of production of uranium oxide (U_3O_8) are not available for publication.

Value of minerals produced

The following table shows the value of minerals produced in the past five years.

VALUE OF MINERALS PRODUCED
($'000)

Mineral	*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*
METALLIC MINERALS					
Antimony—					
Concentrate	176	546	932	1,904	1,462
Ore	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)
Bauxite	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)
Beryllium ore	16	23	23	1	. .
Bismuth concentrate	5,066	6,813	7,609	14,085	10,591
Copper—					
Concentrate	114,956	154,748	267,873	168,047	159,876
Ore(*b*)	947	701	(*a*)	766	305
Ore for fertiliser	6	9	5	3	. .
Oxide	475	757	982	1,406	1,900
Precipitate	134	101	168	31	42
Gold—					
Bullion(*c*)	21,435	25,730	26,839	43,139	43,735
Ore	. .	. .	3	8	10
Iron ore	372,483	395,189	427,518	613,169	674,515
Iron oxide	773	1,150	(*a*)	855	915
Lead concentrate	(*d*)69,340	(*d*)72,060	110,875	124,519	117,099
Lead-copper concentrate	4,444	6,089	8,799	7,609	8,363
Lead ore(*e*)	321	494	403	579	566
Lead-zinc middlings	1,846	2,560	2,002	2,422	2,094
Manganese ore	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)
Mineral sands—					
Ilmenite concentrate	(*f*)8,071	(*f*)8,155	(*f*)7,953	(*f*)14,270	(*f*)15,835
Leucoxene concentrate	1,089	722	1,060	2,079	2,078
Monazite concentrate	608	551	542	515	774
Rutile concentrate	41,023	36,510	36,750	53,699	71,750
Xenotime concentrate	18	22	7	12	9
Zircon concentrate	12,503	11,821	16,726	58,128	60,935
Molybdenite concentrate	17	. .	6	. .	. .
Nickel concentrate	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)
Nickel ore	. .	(*a*)	. .	(*a*)	(*a*)
Pyrite concentrate	2,230	139	238	441	771
Tantalite-columbite concentrate	835	670	777	942	1,256
Tin concentrate	30,406	32,282	43,448	49,138	49,060
Tin-copper concentrate	659	516	860	390	435
Tungsten ores and concentrates	7,979	5,550	5,292	11,385	15,497
Zinc concentrate	63,393	61,820	97,122	138,385	133,340
Zinc ore	. .	. .	1,551	2,439	1,600
Other metallic minerals	. .	. .	. .	84	2,928
Total metallic minerals	*921,642*	*995,416*	*1,281,782*	*1,572,746*	*1,676,273*
COAL					
Black coal	330,504	390,980	449,855	874,879	1,211,199
Brown coal (lignite)(*g*)	21,768	24,716	27,251	40,556	48,346
Brown coal briquettes	11,280	9,173	11,011	11,391	11,974
Total coal	*363,553*	*424,869*	*488,116*	*926,827*	*1,271,519*
PETROLEUM(*h*)					
Petroleum	*271,981*	*311,903*	*378,750*	*446,298*	*513,155*

For footnotes *see* next page.

VALUE OF MINERALS PRODUCED—*continued*

($'000)

Mineral	*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*
CONSTRUCTION MATERIALS(*i*)					
Construction materials	*159,031*	*170,484*	*196,611*	*238,044*	*253,845*
OTHER NON-METALLIC MINERALS					
Asbestos	(*j*)453	3,256	4,140	7,960	18,406
Barite	202	208	98	303	(*a*)
Carbon dioxide	38	47	52	45	56
Clay—					
Brick clay and shale	8,408	9,355	11,153	10,241	12,634
Other clays	2,385	2,682	(*a*)	(*a*)	4,335
Diatomite	17	43	70	45	60
Dolomite	844	888	1,087	991	1,262
Felspar (including cornish stone)	38	35	48	87	97
Fluorspar	22	79	49	. .	. .
Garnet concentrate	8	2	2	. .	. .
Gems	27,262	40,911	47,262	37,032	41,972
Gypsum	2,819	2,826	3,665	3,176	3,069
Limestone (including shell and coral)	15,135	16,932	20,794	24,221	26,087
Lithium ores	30	11	. .	. .	. .
Magnesite, crude	236	318	291	722	(*a*)
Mineral pigments—red ochre	. .	10	6	. .	15
Peat(*k*)	87	(*a*)	143	146	(*a*)
Pebbles—for grinding	38	36	43	27	38
Perlite	3	18	11	32	12
Phosphate rock	10	6	6	894	1,508
Pyrophyllite	58	112	103	156	200
Salt	11,804	12,655	16,410	21,951	29,394
Silica	3,555	4,484	5,353	6,301	6,559
Sillimanite	17	17	19	22	18
Talc (including steatite and chlorite)	782	(*a*)	1,363	1,348	(*a*)
Vermiculite	1	35	(*a*)	(*a*)	. .
Total other non-metallic minerals	*74,253*	*95,943*	*116,062*	*120,097*	*149,398*
TOTAL					
Total, all minerals and construction materials	**1,790,460**	**1,998,615**	**2,461,320**	**3,304,012**	**3,864,189**

(*a*) Not available for publication. (*b*) Includes value of copper slag. (*c*) Includes alluvial gold. (*d*) Excludes value of Western Australian production. (*e*) Includes value of silver-lead ore, silver-lead slimes and lead slag. (*f*) Includes beneficiated ilmenite. (*g*) Excludes value of coal used in making briquettes. (*h*) The values shown are estimates based on prices prescribed in legislation quoted market prices and information from government departments. Includes values for crude oil, natural gas, natural gas condensate, ethane, propane and butane. (*i*) Incomplete owing to difficulties of coverage in some States. (*j*) Excludes Western Australian production. (*k*) Comprises peat for fertiliser and peat moss.

Foreign participation in the mining industry in Australia

Summary information on foreign ownership and control of the mining industry in Australia is shown in Chapter 24. More detailed statistics are available in *Foreign Ownership and Control of the Mining Industry* (5317.0) and *Foreign Ownership in Mineral Exploration* (5230.0).

Mineral exploration (other than for petroleum)

Definition

Exploration consists of the search for and/or appraisal of new ore occurrences and known deposits of minerals (including extensions to deposits being worked) by geological, geophysical, geochemical and other methods (including drilling). Exploration for water is excluded. The construction of shafts and adits is included if primarily for exploration purposes. Excluded are mine development activities carried out primarily for the purpose of commencing or extending mining or quarrying operations (including the construction of drives, shafts, winzes, etc. in underground mines, and the preparation of quarrying sites, including overburden removal, for open-cut extraction).

Sources of statistics

The statistics of exploration for minerals *other than petroleum* are derived from the annual mineral exploration census conducted by the Australian Bureau of Statistics in each State and the Northern Territory (in New South Wales the census is conducted jointly with the State Mines Department).

Classification

The data obtained in the mineral exploration census are divided into the following categories:

(*a*) *Private exploration on production leases*—relates to exploration carried out on the production lease by privately-operated mines currently producing or under development for the production of minerals.

(*b*) *Other private exploration*—relates to exploration carried out by private enterprises on areas covered by exploration licences, authorities to enter, authorities to prospect and similar licences and authorities issued by State Governments for exploration of minerals. Also included is exploration by private enterprises which is not directly connected with areas under lease, licence, etc.

(*c*) *Exploration by government*—relates to exploration of minerals carried out by:

(i) State Mines Departments and business undertakings operated by State and local government authorities.

(ii) the Commonwealth Government (Bureau of Mineral Resources, Geology and Geophysics, The Joint Coal Board, The Atomic Energy Commission and The Mines Branch of the Department of the Northern Territory).

Expenditure, metres drilled

The following table shows expenditure and metres drilled on mineral exploration other than for petroleum in Australia during the last five years.

MINERAL EXPLORATION (OTHER THAN FOR PETROLEUM)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Expenditure ($'000)—					
On drilling	32,864	29,039	28,824	36,172	35,104
Other	91,611	79,088	83,714	88,029	82,033
Australia	**124,475**	**108,127**	**112,539**	**124,200**	**117,137**
Metres drilled ('000)—					
Drilled-core	794	769	657	733	530
Drilled-non-core . . .	2,514	2,181	1,854	1,775	1,589
Australia	**3,308**	**2,949**	**2,511**	**2,509**	**2,119**

Petroleum exploration

Source of statistics

These statistics were collected and compiled by the Bureau of Mineral Resources, Geology and Geophysics, Canberra. Statistical and other information relating to petroleum exploration is published by the Bureau of Mineral Resources in *The Petroleum Newsletter* (issued quarterly) and *The Australian Mineral Industry—Annual Review*, and by the Australian Bureau of Statistics in its bulletin, *Petroleum Exploration* (8409.0).

Scope

Petroleum exploration consists of the search for and/or appraisal of deposits of crude oil and/or natural gas and natural gas liquids by geological, geophysical, geochemical, and other exploration methods, including drilling. Included in the expenditure are the costs of drilling exploratory oil and/or gas wells and the testing of such wells. Also included are the costs of access roads, site construction, permits, licences and similar fees, relevant office buildings and furniture, transportation equipment, storage facilities, plant and equipment, and review work where these are undertaken primarily for purposes of exploration for deposits of petroleum. Details of developmental oil and/or gas wells are excluded.

Operations

The following table shows particulars of expenditure, and wells and metres drilled in petroleum exploration in recent years.

PETROLEUM EXPLORATION

		1971	*1972*	*1973*	*1974*	*1975*
Expenditure—						
Private sources	$'000	78,883	103,626	93,240	89,534	59,990
Government sources	$'000	4,371	4,548	4,880	4,468	4,941
Total	**$'000**	**83,254**	**108,174**	**98,120**	**94,002**	**64,931**
Wells—						
Drilled (i.e. those which reached final depth)—						
As oil producers	No.	1	3	1	1	..
As gas producers	No.	12	17	8	4	3
As oil and gas producers(*a*)	No.	..	..	2	3	1
Plugged and abandoned	No.	62	82	49	43	21
Total	**No.**	**75**	**102**	**60**	**51**	**25**
Average final depth of wells drilled	m	2,274	2,213	2,441	2,321	1,953
Drilling still in progress at 31 December (uncompleted holes)	No.	8	9	7	2	1
Wells drilled or drilling over 3,000 metres	No.	23	20	22	16	5
Metres drilled—						
Completed wells	m	153,344	204,836	127,978	118,256	47,617
Uncompleted holes	m	15,199	19,595	12,860	3,028	620
Total	**m**	**168,543**	**224,431**	**140,838**	**121,284**	**48,237**

(*a*) This breakdown not available prior to 1973.

Mineral processing and treatment

The extraction of minerals from ore deposits, as in mining and quarrying, is only a part of mineral technology, as few minerals can be directly used in the form in which they are mined. In most cases minerals must undergo considerable processing and treatment before utilisation. The sectors of the economy which carry out this work are classified for statistical purposes to Manufacturing Industry (*see* Chapter 17).

Principal products

The following table shows particulars of the production of certain important manufactured products of mineral origin during recent years.

PRODUCTION OF PRINCIPAL MANUFACTURED PRODUCTS OF MINERAL ORIGIN

Commodity		*1971–72*	*1972–73*	*1973–74*	*1974–75(a)*	*1975–76(a)*
METALS(*b*)						
Non-ferrous—						
Alumina	'000 tonnes	2,826	3,527	4,516	5,073	5,618
Refined aluminium	tonnes	212,461	207,531	208,756	222,876	220,027
Blister copper(*c*)	"	144,791	149,512	184,952	189,257	174,187
Refined copper	"	130,827	136,792	149,300	178,451	164,279
Lead bullion (for export)(*c*)	"	141,582	138,798	149,257	149,876	152,256
Refined lead	"	190,638	173,561	201,025	170,508	168,183
Refined zinc	"	274,245	302,536	281,586	243,209	204,534
Refined tin	"	6,391	7,301	6,509	5,973	5,386
Ferrous—						
Pig iron(*d*)	'000 tonnes	6,006	7,021	7,444	7,598	7,519
Steel ingots(*d*)	"	6,480	7,209	7,504	8,063	7,937
Precious—						
Refined gold(*e*)	'000 grams	16,394	14,689	11,106	10,744	12,829
Refined silver	"	273,142	247,933	259,221	272,855	226,209
FUELS						
Coal products—						
Metallurgical coke	'000 tonnes	4,136	4,926	4,921	5,103	5,253
Brown coal briquettes	"	1,329	1,221	1,164	1,092	946
Petroleum products—						
Motor spirit	mil. litres	10,609	11,157	12,200	12,508	12,501
Furnace fuel	'000 tonnes	5,015	5,042	5,265	4,656	4,340
Automotive distillate	"	3,426	3,707	4,265	4,682	5,003
Industrial diesel fuel	"	1,112	1,055	1,276	1,110	1,216
BUILDING MATERIALS						
Clay bricks	millions	1,744	1,881	2,050	1,722	1,820
Portland cement	'000 tonnes	4,884	5,097	5,412	5,273	5,100
Plaster of paris	"	315	342	361	339	355
Plaster sheets	'000 sq m	34,315	39,151	44,105	42,372	44,794
CHEMICALS						
Sulphuric acid	'000 tonnes	1,756	2,266	2,434	1,770	1,295
Caustic soda	tonnes	127,857	123,219	140,578	141,430	139,535
Superphosphate(*f*)	'000 tonnes	3,508	4,962	5,288	3,092	2,278

(*a*) Some products exclude production of single establishment manufacturing establishments employing less than four persons and production of establishments predominantly engaged in non-manufacturing activities but which may carry on in a minor way, some manufacturing. (*b*) Excludes secondary metal with the exception of pig iron and steel ingots. (*c*) Metallic content. (*d*) Year ended 31 May (*e*) Newly-won gold of Australian origin. (*f*) Includes double and triple superphosphate and ammonium phosphate expressed in terms of single superphosphate i.e. 22% P_2O_5 equivalent.

Overseas trade

Exports and imports

Data of imports and exports of minerals and mineral products have been extracted from the official trade statistics compiled in the Australian Bureau of Statistics. Particulars of the quantities and values ($f.o.b. port of shipment) of the principal minerals and mineral products exported from and imported into Australia during recent years are shown in the following table.

EXPORTS AND IMPORTS OF PRINCIPAL MINERALS AND MINERAL PRODUCTS AUSTRALIA

Commodity(a)		*Quantity* 1973–74	*Quantity* 1974–75	*Quantity* 1975–76	*Value ($'000 f.o.b.)* 1973–74	*Value ($'000 f.o.b.)* 1974–75	*Value ($'000 f.o.b.)* 1975–76
EXPORTS(*b*)							
Non-ferrous—							
Copper—							
Concentrate	tonnes	175,510	146,744	158,891	57,755	44,145	40,838
Blister	„	10,426	15,196	9,497	21,856	20,853	13,505
Refined	„	50,678	93,862	85,843	76,850	93,800	82,715
Matte, slags, etc.	„	8,392	23,496	30,548	2,440	3,859	2,546
Lead—							
Concentrate	„	77,678	42,192	84,507	19,445	13,223	19,044
Bullion	„	147,820	152,754	151,652	73,059	82,265	70,841
Refined	„	134,231	124,766	153,675	43,671	47,436	38,103
Slags and residues	„	44,825	25,406	19,340	2,644	2,261	1,544
Zinc—							
Concentrate	„	426,272	398,622	424,582	45,560	58,311	62,224
Refined	„	164,404	140,429	124,068	69,331	78,526	70,816
Slags and residues	„	6,758	5,454	5,304	1,647	1,799	1,482
Tin—							
Concentrate	„	7,982	13,700	7,339	13,530	25,623	14,217
Refined	„	2,409	2,394	2,351	7,641	11,044	12,131
Aluminium—							
Alumina	'000 tonnes	3,951	4,472	5,265	196,078	297,873	436,064
Refined	tonnes	45,834	64,064	69,119	20,727	37,536	44,026
Ferrous and alloy—							
Iron ore—							
Pellets	'000 tonnes	9,519	7,747	9,040	89,905	101,746	137,553
Fines	„	31,874	36,196	34,810	154,078	237,477	270,537
Lump	„	36,871	41,404	35,076	248,098	365,783	362,852
Tungsten—							
Scheelite concentrate	tonnes	1,658	1,924	2,286	3,419	8,686	12,114
Wolfram concentrate	„	382	469	533	792	2,106	2,588
Pig iron	„	957,805	558,507	593,051	60,081	62,012	40,478
Steel ingots, blooms	„	747,572	1,132,954	1,527,951	64,059	149,322	159,814
Mineral sands—							
Ilmenite concentrate	'000 tonnes	711	628	628	8,136	7,658	8,419
Rutile concentrate	„	359	338	339	45,324	56,780	65,646
Zircon concentrate	„	402	389	286	18,616	56,972	51,712
Precious—							
Gold, refined	'000 grams	4,344	2,940	7,659	13,660	10,973	27,587
Silver, refined	„	112,894	143,301	89,982	8,212	14,119	9,664
Coal, black	'000 tonnes	27,755	32,652	30,260	347,992	660,511	1,062,546
Crude oil(*c*)	'000 cu m	288	234	243	8,520	14,388	17,559
IMPORTS							
Tin, refined	tonnes	67	26	34	337	138	181
Nickel (pigs, anodes, etc.)	„	2,687	1,050	992	5,474	3,410	3,761
Ferro-alloys	„	46,335	43,287	25,348	12,570	21,210	11,895
Gold—							
Unrefined bullion(*d*)	'000 grams	2,697	2,809	3,051	7,265	8,744	9,187
Refined	„	7	24	13	21	108	49
Crude oil(*e*)	'000 cu m	10,139	9,552	9,569	244,062	475,080	516,361
Asbestos	tonnes	56,839	51,194	56,241	8,216	11,195	17,853
Diamonds—							
Industrial	metric carats	1,084,883	928,558	743,841	3,717	3,420	2,818
Gemstone	„	90,196	69,091	86,721	14,734	14,307	17,268
Phosphate rock	'000 tonnes	3,104	2,639	1,482	35,232	74,059	53,212
Potassium fertilisers	tonnes	190,596	211,108	110,190	5,220	9,523	7,257
Sulphur	„	608,010	925,747	156,495	8,329	14,899	4,986

(*a*) In addition to the commodities listed, significant quantities of bauxite and nickel ores and concentrates are exported but details are not available for publication. (*b*) Quantities shown for metallic minerals are gross quantities, not metallic contents. (*c*) Includes also partly refined oil, topped crudes and enriched crudes. (*d*) Gold content. (*e*) Includes also partly refined oil, topped crudes, enriched crudes and refinery feed stock.

Considerable quantities of metallic ores, concentrates, slags, and residues are exported from Australia for refining overseas. The following table shows selected items exported during 1975–76 and their principal metallic content as estimated by assay.

PRINCIPAL METALLIC CONTENTS OF SELECTED ORES AND CONCENTRATES ETC., EXPORTED FROM AUSTRALIA, 1975-76

	Metallic contents—estimated from assay							
Ores and concentrates, etc.	*Copper*	*Lead*	*Zinc*	*Tin*	*Iron*	*Tungstic oxides*	*Gold*	*Silver*
	tonnes	tonnes	tonnes	tonnes	'000 tonnes	tonnes	'000 grams	'000 grams
Copper concentrate	46,718	..	..	..	..	..	1,032	11,105
Blister copper	9,757	..	..	..	..	..	1,563	1,804
Copper matte, slags, etc.(*a*)	2,560	4,223	1,803	..	..	..	1,264	16,853
Lead concentrate	3,222	50,469	5,992	..	..	..	1,328	87,384
Lead bullion	11	150,731	..	..	..	..	..	370,575
Lead slags and residues	348	7,375	26	..	..	..	49	15,400
Zinc concentrate	..	2,755	219,682	..	..	..	..	41,028
Zinc slags and residues	..	..	4,324	..	..	..	..	..
Tin concentrate	1	..	..	3,309	..	..	..	..
Iron ore—								
Pellets	..	..	..	..	6,185	..	..	..
Fines	..	..	..	..	23,462	..	..	.
Lump	..	..	..	..	24,852	..	..	..
Scheelite concentrate	..	..	..	..	..	157,786	..	..
Wolfram concentrate	..	..	..	..	..	37,745	..	..
Total metallic content	62,617	215,553	231.827	3,309	54,499	195,531	5,236	544,149

(*a*) Includes copper matte, copper slags and residues and copper-lead dross and speiss.

Prices

The following table shows average prices of some principal refined metals and ores and concentrates on Australian and certain major overseas markets. Prices of minerals such as iron ore, coal and bauxite are not shown as these minerals are commonly sold on a contract basis rather than on an open market basis.

AVERAGE DAILY PRICES OF SELECTED METALS AND METALLIC ORES AND CONCENTRATES: AUSTRALIAN AND OVERSEAS MARKETS

(*Source:* Bureau of Mineral Resources, Geology and Geophysics)

METALS(*a*)

	Tin				*Aluminium*		*Gold*		*Silver*	
Period	*Aust. ($A—tonne)*	*L.M.E. (£Stg—metric ton)*	*Straits ($Mal-picul)*	*Nickel U.S.A. ($U.S.—lb)*	*Aust. ($A—tonne)*	*U.S.A. (USc—lb)*	*Premium markets ($A—f. oz) Australia and Overseas*	*U.K. ($US—f. oz)*	*Aust. ($A—kg)*	*U.K. (Stg new pence—f. oz)*
1973–74	4,774.1	2,882.8	957.0	1.59	585.0	28.2	88.47	130.76	82.5	162.8
1974–75	5,715.8	3,246.7	1,022.3	1.93	671.0	38.1	121.54	167.86	104.9	187.9
1975–76	5,698.3	3,402.7	1,014.9	2.17	751.7	41.1	110.40	139.32	112.4	221.9
1975–76										
Highest	6,840.0	4,577.5	1,197.1	2.20	787.0	44.0	127.20	168.4	126.6	271.3
Lowest	5,174.0	3,003.0	923.0	2.01	707.0	39.0	102.13	124.6	103.0	189.1

	Copper		*Lead*			*Zinc*			
Period	*Aust. ($A—tonne)*	*L.M.E. (£Stg—metric ton)*	*Aust. ($A—tonne)*	*L.M.E. (£Stg—metric ton)*	*U.S.A. (USc—lb)*	*Aust. ($A—tonne)*	*L.M.E. (£Stg—metric ton)*	*Prod. (£Stg—ton)*	*U.S.A (USc—lb*
1973-74	1,428.8	980.7	358.4	237.4	18.48	454.2	582.0	282.4	27.45
1974–75	1,050.5	598.3	366.6	216.5	23.95	612.8	359.1	353.6	38.55
1975–76	1,017.9	655.3	300.8	194.9	20.32	628 7	364.3	(*b*)795.0	37.99
1975-76									
Highest	1,260.0	908.5	355.0	283.0	23.00	651.0	449.5	(*b*)795.0	41.00
Lowest	900.0	537.5	290.0	156.8	19.00	603.0	318.9	(*b*)795.0	37.00

For footnotes *see* next page

AVERAGE DAILY PRICES OF SELECTED METALS AND METALLIC ORES AND CONCENTRATES: AUSTRALIAN AND OVERSEAS MARKETS—*continued*

ORES AND CONCENTRATES

Period	*Tin Aust. ($A–mtu)*	*Wolfram Europe ($Stg–mtu)*	*Ilmenite Europe ($A–metric ton)*	*Rutile Europe ($A–metric ton)*	*Zircon Europe ($A–metric ton)*
1973–74 . . .	42.43	15.70–45.50	9.35–11.32	127.00–240.00	45.00–240.00
1974–75 . . .	48.58	37.00–50.25	13.00–18.00	200.00 330.00	170.00–330.00
1975–76 . . .	47.89	36.75–64.00	15.00–18.00	290.00–330.00	140.00–330.00
1975–76—					
Highest . . .	56.77	64.00	18.00	330.00	330.00
Lowest . . .	44.03	36.75	15.00	290.00	140.00

(*a*) Where a daily price does not actually exist for a commodity, daily prices have been imputed from price data which are available. (*b*) From 2 January 1976 prices quoted in $US per tonne.

Details on monthly prices, and price specifications relating to each commodity in the table are contained in each issue of the bulletin, *Minerals and Mineral Products* (8404.0).

REVIEW OF RECENT DEVELOPMENTS IN THE AUSTRALIAN MINERAL INDUSTRY

Major developments in the Australian mineral industry, particularly during the last year, are reviewed briefly in subsequent parts of this section. Additional information on developments in the industry is available in *Australian Mineral Industry 1975 Review* published by the Bureau of Mineral Resources, Geology and Geophysics. That publication contains comprehensive reviews of mineral commodities of importance to the Australian economy, as well as a general review of the industry's performance during the year.

General Review of 1975 and 1976

In 1975, the major factors affecting the world mining industry were lack of demand and large increases in costs. Depletion of stocks by consumers resulted in reduced demand for mineral products, and inventories held by producers rose to record levels. Mine, smelter and refinery production continued to be curtailed, and capital expenditure on new projects and expansion programs was either deferred or reduced.

A significant overall growth in the world mining industry occurred in 1976, but this masked the rather disappointing performance of the OECD nations, particularly in Europe. The revival that occurred in the United States terminated late in the year and the western developed economies stagnated in recession. The Communist nations continued their steady increase in output, but the highest growth rates occurred in the developing countries of Asia, mainly in oil and gas production where output in 1975 had been temporarily reduced as a result of OPEC policies. The rapid expansion of the Australian mining industry that had characterised the previous decade came to an end.

In Australia in 1975 the principal economic indicators showed a continuous expansion of the Australian mineral industry but, in general, at a slightly lower rate than the average for the previous two years. In 1976, with the exception of pig iron and steel, they showed a further expansion of the industry. However, black coal production increased by 13 per cent in 1976 (6 per cent in 1975 and 4 per cent in 1974) and the index of exports at constant prices increased by 9 per cent (2 per cent in 1975 and 7 per cent in 1974).

The slackening of the rate of growth of the industry in 1975 resulted mainly from the increase in domestic costs and falling domestic and overseas demand. This fall in the rate of growth was masked somewhat by revenue increases arising from renegotiations of export contracts, and the effects of the September 1974 revaluation of the Australian dollar.

The 1976 record ex-mine value of mineral production of $4,255 million was an increase of 22 per cent compared with 1975. However, this hid the fact that production of base metals fell and producer stocks of these and some other metals rose because of a serious recession in demand during 1976.

Bauxite and Alumina

The history of the aluminium industry and recent significant developments in the industry were reviewed in previous issues of the Year Book (No. 51, page 1168 and No. 52 page 1048).

In 1976, bauxite production capacity at Weipa, Queensland, was 11.2 million tonnes per annum following completion of a further stage in the development of the mine and associated township, and of ore treatment and loading facilities. Approximately 4 million tonnes from Weipa were used by the Gladstone, Queensland, alumina refinery in 1976; the remaining production is available for export.

A decision has been made to proceed with the bauxite/alumina project in Western Australia to mine bauxite from the Mount Saddleback area and build an aluminium refinery at Worsley. A refinery will also be built at Wagerup by the early 1980's, with an initial capacity of 1 million tonnes of alumina per annum. A study is in progress concerning the limited development of the Mitchell Plateau bauxite deposits for use in refractories and for other special purposes.

The rated annual capacities of the existing alumina plants are now: Gladstone, Queensland, 2,000,000 tonnes; Gove, Northern Territory, 1,000,000 tonnes; Kwinana, Western Australia, 1,400,000 tonnes; and Pinjarra, Western Australia, 2,000,000 tonnes. Bauxite supplies for the Kwinana refinery are obtained from deposits 50 km away at Jarrahdale, the reserves of which are assessed as at least 500 million tonnes, while supplies for the plant at Pinjarra are obtained from Del Park and Huntly.

Copper

Mine production of copper at Mount Isa increased to 141,000 tonnes in 1976. New discoveries include copper-zinc mineralisation at Teutonic Bore, 80 km southwest of Agnew, W.A., and copper-uranium mineralisation at Roxley Downs, S.A. The Kanmantoo, S.A. and Mammoth (Gunpowder), Qld, mines have been placed on care and maintenance. The scale of operations at the Mount Lyell mine, Tasmania, was reduced in 1976 because of lower copper prices. The Commonwealth Government is providing financial assistance to enable the mine to operate at least until June 1978. The Mount Morgan mine, Qld, was still operating in late 1977 but at a reduced scale. Production schedules at Cobar, N.S.W., have been restricted to alleviate the adverse effects of high production costs and low prices.

Iron

A summary of growth of the Australian iron ore industry 1965 to 1975 has been published in the *Australian Mineral Industry Quarterly Review*, Vol. 29 No. 1.

The major development of recent years has been the establishment in Australia of a large-scale iron ore export industry based principally on steelmaking requirements in Japan. Exports of iron ore and iron ore pellets in 1976 to Japan and elsewhere were 81.0 million tonnes valued at $828 million.

Annual production and shipment capacity for iron ore was increased in 1976 to 40 million tonnes by the Mount Newman Joint Venturers, who plan to expand capacity to 45 million tonnes per annum. Hamersley Iron Pty Ltd is increasing production capacity from 40 to 46 million tonnes per annum of saleable iron ore by construction of a concentration plant to treat low grade ore at Mount Tom Price. Cliffs Robe River Iron Associates is expanding mine production capacity at Robe River from 16 to 20 million tonnes per annum.

Silver, lead and zinc

Production of lead and zinc metal in 1976 was 398,300 tonnes and 464,300 tonnes respectively.

A summary of the Australian lead and zinc industry from 1953 to 1973 was published in the *Australian Mineral Industry Quarterly Review*, Vol. 27 No. 4.

Production from the Woodlawn, N.S.W., mine is expected to begin in late 1978. Operation commenced in 1977 of a 50 tonne per day pilot plant as part of a feasibility study at McArthur River, N.T.. It will operate for 12 months after which progress will be reviewed. Construction of a vertical development shaft to explore the Que River Prospect, Tasmania, commenced in 1977. A test shaft to obtain bulk samples for metallurgical testing of ore at the Elura Prospect, N.S.W., was completed in late 1977.

Black coal

There has been a significant revival in the Australian black coal industry in recent years as a result of increased exports and increased consumption of black coal in iron and steel production and electricity generation. These increases have more than balanced reduced consumption in some applications due to competition from fuel oil.

The expansion of the export trade has been of major significance. In 1955 exports were about 200,000 tonnes valued at about $1.7 million; in 1976 exports were 31.2 million tonnes valued at $1,111 million. These increased exports have been largely to Japan for use in the iron and steel industry and to Europe as steaming coal. As a result of this increased demand, new mines have been opened and others are under development in Queensland and New South Wales, and many established mines are being expanded. Exploration for coal has been stimulated and further rich deposits of coking coal and steaming coal have been located, particularly in Queensland.

Petroleum

At the end of 1976, there were nine oil fields in production: Moonie, Alton and Bennett in Queensland; Barrow Island, Yardarino and Dongara in Western Australia; and Barracouta, Halibut and Kingfish offshore from Victoria in Bass Strait. The production of crude oil (excluding condensate and LPG) in 1976 amounted to 24,030,000 cubic metres representing 70 per cent of the year's total input to Australian refineries. The average daily production of 65,800 cubic metres in 1976 was one per cent higher than in 1975. Natural gas production in 1976 amounted to 6,100 million cubic metres, 15 per cent more than in 1975. About 10 per cent of this was used in the field and processing plants and the balance was sold, mainly as fuel, to markets in Victoria, South Australia, Western Australia and Queensland. Supplies to the New South Wales market from the Cooper Basin, S.A., commenced in late 1976.

Discoveries in 1976 included one of gas and condensate (non-commercial) at Barolka No. 1 (Cooper Basin in Queensland), and three gas discoveries (all currently non-commercial) at Spar No. 1, (Northwest Shelf, offshore from Western Australia), Perentie No. 1 (Barrow Island, Western Australia) and Namur No. 1, (Cooper Basin, South Australia).

The provisional figure for metres drilled in petroleum exploration and development in Australia in 1976 was 74,826 metres, 28 per cent more than that drilled in 1975; 47,129 metres were in exploration drilling, including 27,697 metres offshore. Of the thirty-four wells completed in 1976, nineteen were exploration wells, including three offshore. Compared with 1975, there was a decline of six in the number of exploration wells and an increase of eleven in the number of development wells drilled. There was also a decline of sixteen in the number of offshore exploration wells. Six exploration and thirteen developmental wells were completed as potential gas producers.

Nickel

A summary of the growth of the Australian nickel industry was published in the *Australian Mineral IndustryQuarterly Review*, Vol. 28 No. 4.

Mine production of nickel in ore and concentrates increased to about 82,500 tonnes in 1976, about 11 per cent of world mine production Production is expected to commence at Agnew, W.A., in late 1978, with the concentrates being toll-smeltered at the Kalgoorlie smelter, the capacity of which will consequently be increased. Australia's major nickel producer, Western Mining Corporation Ltd, cut back production in late 1977 because of excess world nickel supplies and the very large nickel stockpiles held by major producers.

Mineral sands

The history of the mineral sands industry is presented in the *Australian Mineral Industry Quarterly Review*, Vol. 25 No. 1.

Phosphate

Capacity for producing direct-shipping grade rock at Duchess, Qld, was increased to one million tonnes per annum with the commissioning of a new crushing, washing and screening plant in late 1976. A rock drier was commissioned in Townsville in 1977. Production in late 1977 was running below capacity because of marketing problems.

Uranium

The Mary Kathleen, Qld uranium mine and mill re-commenced production in early 1976 and produced 329 tonnes of uranium in yellowcake during the year.

Plans for further development of Australia's uranium resources were held in abeyance during 1976 and much of 1977 pending a Government decision which was made after consideration of the reports of the Ranger Uranium Environmental Inquiry. The Government announced a new uranium Safeguards Policy on 24 May 1977 and announced its decision to allow the mining and export of uranium on 25 August 1977.

Substantial additions to in-place ore reserves at the Jabiluka deposits, N.T. and to uranium resource estimates at new deposits in Queensland (Maureen), South Australia (Honeymoon), and Western Australia (Lake Raeside, Lakeway and Thatchers Soak) were announced in 1976. Significant new uranium discoveries were announced by the Australian Atomic Energy Commission in the Northern Territory, and by Western Mining Corporation Ltd in South Australia at Roxby Downs. The latter is copper-uranium mineralisation which shows promise of developing into a very large low-grade deposit. This discovery is a new type of mineralisation to Australia and opens up the possibility of a major new uranium province.

REFERENCES

Further detailed statistics and information on the subjects dealt with in this chapter are contained in the annual printed bulletin *The Australian Mineral Industry Annual Review* and other publications issued by the Bureau of Mineral Resources, Geology and Geophysics, which also issues, in conjunction with the ABS a quarterly publication, *The Australian Mineral Industry*, (*Quarterly Review and Statistics*) (8403.0). The annual ABS statistical bulletins, *Mining Establishments, Summary of Operations* (*Preliminary*) (8401.0). *Mining Establishments, Details of Operations* (8402.0); *Mineral Production* (8405.0); *Mineral Exploration* (8407.0) and the irregular publications *Mining Industry, Foreign Ownership and Control* (5317.0) and *Foreign Control in Mineral Exploration* (5323.0), contain economic statistics of the industry prepared and published as soon as possible after the data have been compiled. A monthly statistical bulletin, *Minerals and Mineral Products* (8404.0) is issued also, and other current statistics on mining or mine products are contained in the *Monthly Review of Business Statistics* (1304.0), the *Digest of Current Economic Statistics* (1305.0), and the monthly bulletin *Production Statistics* (8302.0).

CHAPTER 17

MANUFACTURING AND INTERNAL TRADE

MANUFACTURING

Introduction

History

An historical summary of the development of manufacturing industry in Australia since 1901 is contained in earlier issues of the Year Book (*see* No. 51, pages 143–4).

Decentralisation and manufacturing industries

The decentralisation of secondary industries, and the steps taken by the Commonwealth and State Governments towards its development, are referred to in previous issues of the Year Book (*see* No. 51, page 144).

Bounties on manufacture

Bounties are paid by the Commonwealth Government to encourage local manufacture of certain products. The statutory provisions usually fix a term of operation of the bounty, provide for payment at a rate varying according to changes in the corresponding customs duty, specify the annual maximum amount of bounty payable, and require the bounty to be withheld or reduced if a manufacturer's net profit in production of the commodity exceeds a certain rate, or if rates of wages and conditions of employment in production of the commodity do not conform to prescribed standards. (*See* Chapter 22, Public Finance for products on which bounties are paid).

Industries Assistance Commission and *Temporary Assistance Authority*

Both of these authorities are described in Chapter 24, Overseas Transactions.

Standardisation

The Commonwealth Scientific and Industrial Research Organization has functions concerned with the improvement of efficiency in industrial operations. For further particulars *see* Chapter 25, Science and Technology, in this Year Book.

The Standards Association of Australia is the organisation responsible for the preparation, on a national basis, of Australian standards for materials and products and standard codes of practice.

Formed as the Australian Commonwealth Engineering Standards Association in 1922, it was reconstituted as the Standards Association of Australia in 1929, and was incorporated by Royal Charter in 1950. It is an independent body having the full recognition and support of the Commonwealth and State Governments and of industry. Approximately half its funds are provided by Commonwealth Government grant, the remainder coming primarily from membership subscriptions and from the sale of publications. Organisations, companies, and individuals are eligible for subscribing membership.

The Association is controlled by a Council comprising representatives from Commonwealth and State Governments and their departments, from associations of manufacturing and commercial interests, and from professional institutions. Standards are prepared by committees composed of expert representatives from the interests associated with the subjects under consideration. This assistance is on a voluntary basis.

Preparation of a standard is undertaken in response to a request from any responsible source, subject to verification that the standard will meet a genuine need. Standards may relate to one or more of several aspects of industrial practice such as terminology, test methods, dimensions, specifications of performance and quality of products, and safety or design codes. In general, standards derive authority from voluntary adoption based on their intrinsic merit, but in many cases where safety of life or property or consumer protection is involved, they may have compulsory application through statutory reference.

The Association is the owner of a registered certification trade mark covering conformity of products to standards. Manufacturers of products covered by Australian standards may obtain a licence to use the Australian Standard Mark, under conditions established by the Association.

The Association has international affiliations and is a member, representing Australia, of the International Organization for Standardization (ISO) and of the International Electrotechnical Commission (IEC). Close links are maintained with overseas standards organisations, and the Association acts as Australian agent for the procurement of ISO and IEC publications and the standards of other countries.

The Association has two specialised libraries, one in Sydney and one in Melbourne, containing the national standards of all countries with standards organisations. These libraries provide necessary material for committee work and a free information service to those concerned with standards.

The headquarters office of the Association is in Sydney, and there is a major branch office in Melbourne. Branch offices are located also in other capital cities and at Newcastle, New South Wales.

The National Association of Testing Authorities (NATA) organises testing facilities throughout Australia to serve private and governmental needs. Membership is open to authorities whose testing laboratories conform to the standards of staffing and operations defined by the Association. Testing authorities may register their laboratories voluntarily. The Association assesses the competence of the laboratories and ensures that their standards of competence are maintained. Certificates of test issued by registered laboratories may be endorsed in the name of the Association. NATA endorsed test certificates are generally accepted by governmental, industrial and commercial interests.

Laboratories are registered for performance of specific tests in the fields of metrology, mechanical testing, electrical testing, optics and photometry, non-destructive testing, heat and temperature measurement, chemical testing, biological testing, and acoustic and vibration measurement.

The *Industrial Design Council of Australia* (IDCA) is engaged in activities aimed at encouraging better design in Australian-made goods and fostering a wider appreciation of good design throughout the community. The Council is representative of industry, commerce and government, together with designers and educationists. It is financed by donations from industry and commerce, and by Commonwealth and State Government grants. The Council's Field Advisory Service has a diagnostic and counselling role, assisting smaller manufacturers throughout Australia with product development policy and direction. Field advisers are based in IDCA State offices in Sydney, Melbourne, Brisbane, Adelaide and Perth. The Australian Design Index, published by the Council in five illustrated volumes covering specific product fields, provides details of articles which have received the *IDCA Design Label*. These products are also displayed in Australian Design Centres and in other exhibits arranged by the Council.

Regular contact is maintained with senior executives of manufacturing companies, departmental officers and designers through the Design Delegate program of lectures and information. Inquiries seeking professional design services are referred to qualified industrial designers. The Council is also concerned with raising the standard of training in industrial design in co-operation with education authorities.

Publications include a monthly bulletin, *Design Report*. The Council's national office is in Melbourne.

Productivity Action.

For information about the Productivity Group Movement and Productivity Promotion Council of Australia *see* Chapter 25, Science and Technology.

Manufacturing industry statistics

Manufacturing industry statistics from 1901 to 1967–68

A series of substantially uniform statistics exist from 1901 up until 1967–68 when the framework within which manufacturing statistics were collected was changed. The following table contains a summary of statistics on manufacturing activities in Australia over that period. More detailed manufacturing statistics in respect of this period were included in Year Book No. 57, pages 721–9, and in earlier issues.

MANUFACTURING INDUSTRY: AUSTRALIA(*a*), 1901 TO 1967-68

Year	Factories	Employment(*b*)	Salaries and wages paid(*c*)	Value of— Materials and fuel used	Output	Production (*d*)	Land and buildings (*e*)	Plant and machinery (*e*)
	No.	'000	$'000	$'000	$'000	$'000	$'000	$'000
1901 .	11,143	198	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1911 .	14,455	312	55,056	163,526	266,044	102,518	65,402	63,032
1920–21 .	17,113	367	125,864	427,118	647,986	220,868	121,662	137,310
1930–31 .	21,751	339	124,910	344,978	581,598	236,620	224,422	248,996
1940–41 .	27,300	650	275,838	773,762	1.289,590	515,828	288.188	322,712
1950–51 .	43,147	969	983,436	2,613,926	4,301,670	1,687,744	605,570	673,230
1960–61 .	57,782	1,145	2,289,230	6,115,930	10,465,765	4,349,835	2,389,140	2,785,565
1963–64 .	59,375	1,210	2,651,620	7,372.682	12,642,686	5,270,003	3,204,685	3,480,673
1964–65 .	61,042	1,269	2,993,709	8,140,600	14,037,355	5,896,754	3,505,859	3,766,253
1965–66 .	61,686	1,294	3,162,769	8,437,958	14,689,819	6,251,861	3,776,590	4,154,652
1966–67 .	62,500	1,309	3,407,683	9,015,844	15,892,845	6,877,001	4,061,193	4,706,843
1967–68 .	62,954	1,331	3,665,902	9,663,217	17,094,070	7,430,853	4,303,156	4,962,203

(*a*) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory. (*b*) 1901 and 1911—average employment during period of operation. Later years relate to average employment over whole year. Working proprietors are included in all years. (*c*) Excludes amounts drawn by working proprietors. (*d*) Value added in process of manufacture (i.e. value of output less value of materials and fuel, etc. used). (*e*) Depreciated or book values at 30 June. Includes estimated values of rented premises and machinery.

Manufacturing industry statistics from 1968-69

As from the year ended June 1969, the Censuses of Manufacturing, Electricity and Gas have been conducted within the framework of the integrated economic censuses which include the Censuses of Mining, Retail Trade and Selected Services, and Wholesale Trade. As a result, manufacturing industry statistics for 1968-69 and subsequent years are not directly comparable with previous years. The electricity and gas industries, which were previously included in the Annual Factory Census, were the subject of separate censuses, details of which are given on page 433. The integration of these economic censuses was designed to increase substantially the usefulness and comparability of economic statistics collected and published by the Bureau and to form a basis for the sample surveys which supply current economic statistics from quarter to quarter, particularly those which provide data for the quarterly national income and expenditure estimates.

The economic censuses of Manufacturing, Mining and Retail Trade previously conducted in Australia were originally designed and subsequently developed primarily to provide statistics for particular industries on a basis which would best suit the requirements of users interested in statistics of those industries. More recently there has been a growth of interest in statistics describing activity in the economy as a whole reflected, for example, in the development of employment and earnings statistics, surveys of capital expenditure and stocks and the whole field of national accounts statistics. For such purposes statistics derived from economic censuses in the past have had serious limitations, despite the fact that they covered a broad area of the whole economy. Because of the special-purpose nature of each of the censuses, there were no common definitions of data, there was no common system of reporting units, and, as a standard industrial classification was not used for these censuses, industry boundaries were not defined in ways which would avoid overlapping or gaps occurring between the industrial sectors covered. For these reasons, direct aggregation and comparison of statistics from different censuses were not possible.

The integration of these economic censuses meant that for the first time they were being collected on the basis of a common framework of reporting units and data concepts and in accordance with a standard industrial classification. As a result, the statistics for the industries covered by the censuses are now provided with no overlapping or gaps in scope, and in such a way that aggregates for certain important economic data such as value added, employment, wages and salaries, fixed capital expenditure and stocks can be obtained on a consistent basis for all sectors of the economy covered by the censuses.

For the integration of the various censuses it was necessary to undertake three major developments:

(*a*) The census units for which the statistics were to be collected (factories, mines, shops, etc.) had to be defined and identified in consistent ways and recorded in a central register, together with identifying data about the businesses owning and operating them;

(*b*) A standard industrial classification had to be adopted so that the census units could be classified in consistent ways and to enable the boundaries of the various economic censuses to be determined without gaps or overlapping between them;

(*c*) In order to bring the items of data to a consistent basis of definition in all censuses, it was necessary to revise all the forms used in previous censuses.

The standardisation of census units in the integration of economic censuses means that the basic census unit (the establishment), in general, now covers all the operations carried on under the one ownership at a single physical location. The manufacturing establishment is thus one predominantly engaged in manufacturing, but the data supplied for it now cover (with a few exceptions) all activities at the location. Previously, the manufacturing establishment covered only a specified manufacturing activity primary to one class of industry. It now covers, in addition, subject to certain exceptions mentioned below:

(*a*) any other manufacturing activity (i.e. production of goods primary to another class of industry);

(*b*) any selling and distribution activities connected with the products manufactured;

(*c*) any non-manufacturing activity (e.g. merchanting of goods not manufactured by the establishment; extraction of raw materials for use by the establishment).

The exceptions, in general, relate to locations where the subsidiary activities (in terms of gross value) exceed a specified value (currently $1.8 million); these locations are treated for statistical purposes as two or more establishments corresponding to the various kinds of activity carried on.

The establishment statistics also include data relating to separately located administrative offices and ancillary units serving the establishment and forming part of the business (enterprise) which owns and operates the establishment. These units were formerly excluded from the manufacturing census. They are units such as head offices, storage premises and manufacturers' sales branches or sales offices (except those of the kind which distribute to customers from stocks held by such branches or offices which are treated as establishments in the Wholesale Census).

The Australian Standard Industrial Classification (ASIC), described in the Bureau publication *Australian Standard Industrial Classification* (*Preliminary Edition*), 1969, *Vol.* 1, defines the industries in the economy for statistical purposes, thus permitting the scope of the different economic censuses to be specified without gaps or overlapping between them. It also sets out standard rules for identifying the statistical units (e.g. establishments) and for coding them to the industries of the classification. This classification is broadly convertible to the International Standard Industrial Classification adopted by the United Nations Statistical Commission. The adoption of the ASIC has resulted in changes in scope between the integrated economic censuses introduced in 1968-69 and the individual economic censuses conducted in previous years. The main changes in scope in the manufacturing census, apart from providing for a separate census for electricity and gas, are as follows:

(*a*) Establishments mainly engaged in the following activities, previously included in manufacturing censuses, are excluded as from 1968-69: motor vehicle repairing but not engine reconditioning; repairing and servicing of agricultural machinery; dry-cleaning, laundering and clothes dyeing services; watch, clock and jewellery repairing; boot and shoe repairing; tyre retreading and repairing; custom dressmaking and tailoring (including clothing repairs and alterations); installing and repairing of blinds and awnings, making-up and installing curtains; and repairing domestic appliances. Establishments mainly engaged in these activities are now included in the periodic Retail Trade or Wholesale Trade Censuses.

(*b*) Establishments mainly engaged in non-manufacturing activities but which also carry out, as a subsidiary activity, some manufacturing activities and which, in respect of those manufacturing activities, were previously included in the manufacturing census are excluded as from 1968–69 unless such establishments have manufacturing activities in excess of a specified value (currently $1.8 million).

(*c*) Establishments mainly engaged in the following activities, previously excluded in most States from manufacturing censuses, are included as from 1968-69: slaughtering, milk treating, and publishing.

An indication of the effect of the changes referred to above can be gained from the following comparison. In the 1967-68 census there were approximately 62,600 manufacturing establishments (excluding electricity and gas establishments) with employment of 1,276,000. Of these, approximately 35,400, with employment of 1,097,000 (but *see* footnote (*b*) to the following table) would have been included in the 1967-68 census if ASIC had been used. Figures for the individual States and Territories are given below.

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Approximate number of manufacturing establishments—									
1967–68 census	24,900	18,000	6,100	6,200	5,300	1,800	180	240	62,600
1967–68 census if ASIC had been used(*a*)	13,800	11,400	3,500	3,000	2,500	960	70	100	35,400
Approximate number of employees (thousands)—									
1967–68 census	512	433	114	116	63	34	5		1,276
1967–68 census if ASIC had been used(*b*)	445	376	95	100	51	27	3		1,097

(*a*) Excludes the establishments referred to in (*c*), in the paragraph above. (*b*) These figures relate to employment as defined for the 1967–68 and previous year censuses. They thus exclude employment at the establishments referred to in (*c*) in the paragraph above, sales and distribution employees, employees connected with non-manufacturing activities and employees at separately located administrative offices and ancillary units serving manufacturing establishments. The figures, therefore, are not directly comparable with those for 1968–69 and subsequent years, which include the aforementioned employees.

The third step in integrating the censuses, whereby the items of data on the census forms were standardised for all census sectors, has meant changes in the content of the statistics. For example, the value of 'turnover' is now collected instead of the 'value of output' at the factory, and purchases and selected expenses are collected as well as the value of specified materials, fuels, etc., used. However the underlying concept of 'value added,' is similar to the former concept 'value of production', even though its method of derivation is different. 'Value added', the basic measure of the establishment's contribution to total production, is now calculated as turnover less purchases and transfers in (from other establishments of the enterprise), plus increase (or less decrease) in stocks. In the past, the corresponding item, 'value of production', was obtained by deducting the value of materials, fuels, etc., used from the value of output at the factory. A detailed comparison of the method of derivation is shown in the following table.

Value of production *1967–68*	*Value added* *as from 1968–69*
Selling value at works, exclusive of all delivery costs or charges, of goods manufactured, treated or worked up during the year, including by-products, *plus*	Sales and transfers out (to other establishments of the enterprise), of goods manufactured by the establishment, *plus*
Value of other work done, . . . such as repairing and making up for customers, etc.	Sales and transfers out of goods not manufactured by the establishment, *plus*
	Bounties and subsidies on production, *plus*
	All other operating income, *plus*
	Capital work done for own use, or for rental or lease
Equals: Value of output	*Equals:* Value of turnover
	Plus: Closing stocks
	Less: Opening stocks
Less—	*Less—*
Value of materials used	Purchases and transfers in of materials, electricity, fuels, containers, etc.
Power, fuel and light used	Purchases and transfers in of goods for resale
Water used	Charges for commission and subcontract work
Lubricating oils used	Repair and maintenance expenses
Repairs, etc.	Outward freight and cartage, motor vehicle running expenses, sales commission payments
Containers used	
Equals: Value of production	*Equals:* Value added

Even though the concept of 'value added' is similar to 'value of production', direct comparison of 1968–69 and previous figures will not be possible because of the change in census units already mentioned which has resulted in the 'value added' for the whole establishment being reported, not merely the 'value added' for the manufacturing process. Comparison is also affected, of course, by the change in the scope of the manufacturing census due to the adoption of ASIC. In addition, 'value added' as calculated for the Manufacturing Census differs from the concept used in National Accounts where the concept of 'value added' also excludes some administrative expenses and sundry charges and the change in stocks component is measured by valuing the physical change in stocks at current prices. It is not practicable in the Manufacturing Census to collect data fully in accord with the national accounts concept of 'value added'.

Commencing with the 1975–76 Manufacturing Census, only a limited range of data (i.e. employment and wages and salaries) is collected from single establishment manufacturing enterprises with less than four persons employed. This procedure is expected to significantly reduce both the statistical reporting obligations of small businesses and the collecting and processing costs of the Australian Bureau of Statistics without affecting the reliability of information for the evaluation of trends in the manufacturing sector of the economy (as these small enterprises contribute only marginally to statistical aggregates). To provide a link between past and future series, data for the 1974–75 Manufacturing Census are shown separately for manufacturing establishments owned by multi-establishment enterprises, for single establishment manufacturing enterprises with four or more persons employed, and for single establishment manufacturing enterprises with less than four persons employed.

A Census of Manufacturing was not conducted in Australia for the year 1970–71.

For a more detailed description of the Integrated Economic Censuses reference should be made to Year Book No. 56, Chapter 31.

Multi-establishment enterprises and single establishment manufacturing enterprises with four or more persons employed

Summary of operations

The following table shows the summary of operations for manufacturing establishments.

MANUFACTURING ESTABLISHMENTS—SUMMARY OF OPERATIONS, BY INDUSTRY SUB-DIVISION: AUSTRALIA, 1974-75(*a*) AND 1975-76(*a*)

Industry sub-division	*ASIC code (b)*	*Number of establishments operating at end of June*	*Persons employed(c)*			*Wages and salaries $m*	*Turnover $m*	*Stocks at 30 June*		*Purchases, transfers in and selected expenses $m*	*Value added $m*	*Fixed capital expenditure(d) $m*
			Males No.	*Females No.*	*Total No.*			*Opening $m*	*Closing $m*			
					1974–75							
Food, beverages and tobacco	21–2	3,489	142,672	54,194	196,866	1,315	7,689	814	996	5,220	2,651	282
Textiles	23	682	24,422	18,809	43,231	265	1,038	274	240	596	409	36
Clothing and footwear	24	2,555	20,564	69,731	90,295	455	1,459	260	247	749	697	14
Wood, wood products and furniture	25	3,895	66,775	11,334	78,109	462	1,736	218	253	927	845	75
Paper and paper products, printing	26	2,600	75,278	27,792	103,070	736	2,443	287	392	1,269	1,279	97
Chemical, petroleum, and coal products	27	879	46,444	17,505	63,949	512	2,698	407	589	1,706	1,173	136
Non-metallic mineral products	28	1,488	45,698	5,273	50,971	394	1,505	162	215	790	768	109
Basic metal products	29	546	90,712	7,555	98,267	829	4,509	643	893	3,121	1,638	284
Fabricated metal products	31	3,916	87,874	22,278	110,152	727	2,548	401	469	1,373	1,243	82
Transport equipment	32	1,227	129,277	18,151	147,428	1,068	3,599	592	764	2,160	1,611	134
Other machinery and equipment	33	3,693	142,608	51,514	194,122	1,321	4,274	922	1,167	2,384	2,135	129
Miscellaneous manufacturing	34	2,003	44,572	24,205	68,777	450	1,636	262	317	901	790	68
Total manufacturing		**26,973**	**916,896**	**328,341**	**1,245,237**	**8,533**	**35,134**	**5,241**	**6,543**	**21,196**	**15,240**	**1,446**
					1975–76							
Food, beverages and tobacco	21–2	3,535	144,705	52,194	196,899	1,557	8,557	1,003	1,057	5,537	3,074	305
Textiles	23	700	24,601	19,375	43,976	322	1,278	240	267	763	542	28
Clothing and footwear	24	2,445	20,383	68,640	89,023	547	1,701	243	282	898	842	16
Wood, wood products and furniture	25	4,040	67,040	11,428	78,468	535	2,055	260	297	1,110	982	84
Paper and paper products, printing	26	2,650	72,015	25,874	97,889	807	2,772	395	367	1,352	1,391	84
Chemical, petroleum and coal products	27	913	44,166	16,127	60,293	569	3,124	601	590	1,851	1,262	149
Non-metallic mineral products	28	1,557	43,288	5,079	48,367	438	1,778	216	249	941	870	129
Basic metal products	29	550	87,096	6,819	93,915	856	4,671	908	1,105	3,210	1,658	284
Fabricated metal products	31	3,937	83,550	21,271	104,821	793	2,870	471	521	1,532	1,387	79
Transport equipment	32	1,301	125,327	16,916	142,243	1,154	4,098	775	768	2,297	1,795	110
Other machinery and equipment	33	3,805	132,935	45,233	178,168	1,394	4,725	1,163	1,202	2,521	2,243	122
Miscellaneous manufacturing	34	2,074	43,417	22,961	66,378	501	1,855	307	319	994	873	62
Total manufacturing		**27,507**	**888,523**	**311,917**	**1,200,440**	**9,472**	**39,485**	**6,581**	**7,023**	**23,007**	**16,921**	**1,452**

(*a*) *See*, Manufactnring industry statistics from 1968–69', page 425. (*b*) Australian Standard Industrial Classification. (*c*) Average over whole year. Includes working proprietors. (*d*) Outlay on fixed tangible assets less disposals.

Employment

The statistics on the number of persons employed shown in the following table relate to the average whole year employment, including working proprietors and those persons working at separately located administrative offices and ancillary units in the State.

It should be noted that persons employed in each State (and their wages and salaries) relate to those employed at establishments, administrative offices or ancillary units located in that State, even though the administrative offices or ancillary units may have served establishments located in another State.

MANUFACTURING ESTABLISHMENTS—MALES, FEMALES AND PERSONS EMPLOYED BY INDUSTRY SUB-DIVISION, 1975-76, AND TOTAL MANUFACTURING, 1973-74 AND 1974-75(*a*)

Industry sub-division	*ASIC code(b)*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
					MALES EMPLOYED					
Food, beverages and tobacco	21–2	46,548	42,879	27,654	12,606	10,096	4,195	288	439	144,705
Textiles	23	7,041	13,762	685	1,446	390	1,277	..	..	24,601
Clothing and footwear	24	6,136	11,830	878	1,157	299	83	..	..	20,383
Wood, wood products and furniture	25	21,886	16,301	9,877	7,674	6,624	4,233	78	367	67,040
Paper and paper products, printing	26	26,207	23,944	6,939	5,329	3,948	4,520	106	1,022	72,015
Chemical, petroleum and coal products	27	20,069	15,061	2,849	2,244	2,715	1,228	..	..	44,166
Non-metallic mineral products	28	16,507	11,787	5,351	3,849	4,366	1,001	953	290	43,288
Basic metal products	29	51,099	11,353	5,778	9,124	5,856	3,070			87,096
Fabricated metal products	31	30,340	28,495	9,073	6,983	6,928	1,229	136	366	83,550
Transport equipment	32	35,344	51,001	10,651	22,206	5,053	977	160	176	125,327
Other machinery and equipment	33	55,635	46,682	9,695	13,881	6,046	763			132,935
Miscellaneous manufacturing	34	16,510	18,662	2,859	3,773	1,354	251			43,417
Total manufacturing	**1975–76**	**333,322**	**291,757**	**92,289**	**90,272**	**53,675**	**22,827**	**1,721**	**2,660**	**888,523**
	1974–75	348,638	302,234	90,202	94,275	53,207	23,779	1,788	2,773	916,896
	1973–74	371,364	320,921	93,777	98,721	54,402	25,203	2,114	2,836	969,338
					FEMALES EMPLOYED					
Food, beverages and tobacco	21–2	16,889	16,293	7,481	5,308	4,208	1,764	88	163	52,194
Textiles	23	5,992	10,049	691	1,105	261	1,277	..	..	19,375
Clothing and footwear	24	22,974	37,611	3,530	3,122	1,245	158	..	..	68,640
Wood, wood products and furniture	25	3,904	3,000	1,649	1,266	1,208	341	15	45	11,428
Paper and paper products, printing	26	10,450	8,583	2,264	1,895	1,455	691	33	503	25,874
Chemical, petroleum and coal products	27	9,471	5,178	534	477	361	106	..	..	16,127
Non-metallic mineral products	28	2,122	1,737	327	364	405	84	122	33	5,079
Basic metal products	29	3,723	1,356	320	854	347	104			6,819
Fabricated metal products	31	8,457	7,494	2,054	1,863	1,098	188	33	84	21,271
Transport equipment	32	4,078	9,390	646	2,441	235	122	24	46	16,916
Other machinery and equipment	33	22,099	15,702	1,261	5,207	871	50			45,233
Miscellaneous manufacturing	34	10,246	8,981	1,179	1,931	560	41			22,961
Total manufacturing	**1975–76**	**120,405**	**125,374**	**21,936**	**25,833**	**12,254**	**4,926**	**315**	**874**	**311,917**
	1974–75	129,544	130,617	22,220	26,966	12,645	5,161	289	899	328,341
	1973–74	144,857	148,917	24,783	29,449	13,482	6,324	336	893	369,041
					PERSONS EMPLOYED					
Food, beverages and tobacco	21–2	63,437	59,172	35,135	17,914	14,304	5,959	376	602	196,899
Textiles	23	13,033	23,811	1,376	2,551	651	2,554	..	..	43,976
Clothing and footwear	24	29,110	49,441	4,408	4,279	1,544	241	..	..	89,023
Wood, wood products and furniture	25	25,790	19,301	11,526	8,940	7,832	4,574	93	412	78,468
Paper and paper products, printing	26	36,657	32,527	9,203	7,224	5,403	5,211	139	1,525	97,889
Chemical, petroleum and coal products	27	29,540	20,239	3,383	2,721	3,076	1,334	..	..	60,293
Non-metallic mineral products	28	18,629	13,524	5,678	4,213	4,771	1,085	1,075	323	48,367
Basic metal products	29	54,822	12,709	6,098	9,978	6,203	3,174			93,915
Fabricated metal products	31	38,797	35,989	11,127	8,846	8,026	1,417	169	450	104,821
Transport equipment	32	39,422	60,391	11,297	24,647	5,288	1,099	184	222	142,243
Other machinery and equipment	33 4	77,734	62,384	10,956	19,088	6,917	813			178,168
Miscellaneous manufacturing	34	26,756	27,643	4,038	5,704	1,914	292			66,378
Total manufacturing	1975–76	453,727	417,131	114,225	116,105	65,929	27,753	2,036	3,534	1,200,440
	1974–75	478,182	432,851	112,422	121,241	65,852	28,940	2,077	3,672	1,245,237
	1973–74	516,221	469,838	118,560	128,170	67,884	31,527	2,450	3,729	1,338,379

(*a*) *See* 'Manufacturing industry statistics from 1968–69', page 424. (*b*) Australian Standard Industrial Classification.

Wages and salaries

The following table shows wages and salaries of all employees of manufacturing establishments including those working at separately located administrative offices and ancillary units in the State. Drawings of working proprietors are not included.

MANUFACTURING ESTABLISHMENTS—WAGES AND SALARIES BY INDUSTRY SUB-DIVISION, 1975-76, AND TOTAL MANUFACTURING, 1973-74 AND 1974-75

($ million)

Industry sub-division	*ASIC code(a)*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Food, beverages and tobacco	21–2	521	472	280	129	105	42	3	5	1,557
Textiles	23	97	177	9	18	5	17	..	..	322
Clothing and footwear	24	179	309	25	25	8	1	..	..	547
Wood, wood products and furniture	25	182	132	75	62	51	30	1	3	535
Paper and paper products, printing	26	309	273	69	58	41	44	1	12	807
Chemical, petroleum and coal products	27	276	193	33	25	30	12	..	..	569
Non-metallic mineral products	28	175	124	49	35	41	9	12	3	438
Basic metal products	29	488	120	60	84	64	30			856
Fabricated metal products	31	302	277	78	62	59	9	1	4	793
Transport equipment	32	328	494	87	196	41	8	2	2	1,154
Other machinery and equipment	33	616	495	82	140	52	6			1,394
Miscellaneous manufacturing	34	198	221	28	39	12	2			501
Total manufacturing	1975–76	**3,670**	**3,287**	**874**	**872**	**509**	**211**	**21**	**29**	**9,472**
	1974–75	3,365	2,961	734	797	434	195	19	27	8,533
	1973–74	2,842	2,524	596	665	347	161	18	22	7,176

(*a*) Australian Standard Industrial Classification.

Turnover

The following table shows the value of turnover of manufacturing establishments. The figures include sales of goods whether produced by the establishment or not; transfers out of goods to other establishments of the same enterprise; bounties and subsidies on production; plus all other operating revenue from outside the enterprise, such as commission, repair and service revenue and the value of capital work done on own account. Rents, leasing revenue, interest (other than hire purchase), royalties and receipts from the sale of fixed tangible assets are excluded.

MANUFACTURING ESTABLISHMENTS—TURNOVER, BY INDUSTRY SUB-DIVISION, 1975-76(*a*) AND TOTAL MANUFACTURING, 1973-74 AND 1974-75(*a*)

($ million)

Industry sub-division	*ASIC code(b)*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Food, beverages and tobacco	21–2	2,579	2,767	1,752	637	536	256	14	16	8,557
Textiles	23	419	674	36	73	19	57	..	..	1,278
Clothing and footwear	24	602	942	64	72	18	3	..	..	1,701
Wood, wood products and furniture	25	684	521	258	258	175	143	3	11	2,055
Paper and paper products, printing	26	1,072	939	230	211	119	169	3	29	2,772
Chemical, petroleum and coal products	27	1,524	904	315	122	203	55	..	..	3,124
Non-metallic mineral products	28	630	487	240	163	185	41	97	22	1,778
Basic metal products	29	2,213	577	586	372	612	223			4,671
Fabricated metal products	31	1,057	959	312	249	238	37	6	13	2,870
Transport equipment	32	973	1,909	371	718	104	22	4	4	4,098
Other machinery and equipment	33	2,091	1,696	291	450	174	15			4,725
Miscellaneous manufacturing	34	713	845	108	133	47	8			1,855
Total manufacturing	1975–76	**14,555**	**13,222**	**4,564**	**3,461**	**2,431**	**1,030**	**127**	**96**	**39,485**
	1974–75	13,238	11,730	4,034	3,003	2,032	908	95	95	35,134
	1973–74	11,933	10,669	3,261	2,662	1,741	818	87	76	31,247

(*a*) *See* 'Manufacturing industry statistics from 1968–69', page 425. (*b*) Australian Standard Industrial Classification

Purchases, transfers in and selected expenses

The following table gives details of the value of purchases, transfers in and selected expenses. Figures include purchases of materials, fuel, power, containers, etc., plus transfers in of goods from other establishments of the enterprise, plus charges for commission and sub-contract work, repair and maintenance expenses, outward freight and cartage, motor vehicle running expenses and sales commission payments.

MANUFACTURING ESTABLISHMENTS—PURCHASES, TRANSFERS IN AND SELECTED EXPENSES, BY INDUSTRY SUB-DIVISION, 1975-76, AND TOTAL MANUFACTURING, 1973-74 AND 1974-75

($ million)

Industry sub-division	*ASIC code(a)*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Food, beverages and tobacco	21–2	1,669	1,808	1,137	401	345	158	10	8	5,537
Textiles	23	259	391	22	50	11	30	..	..	763
Clothing and footwear. .	24	332	495	29	34	7	2	..	..	898
Wood, wood products and furniture. . . .	25	368	286	138	151	87	72	2	6	1,110
Paper and paper products, printing	26	528	467	102	108	55	85	..	7	1,352
Chemical, petroleum and coal products. . . .	27	882	514	234	70	119	31	..	..	1,851
Non-metallic mineral products	28	345	239	128	88	101	21	67	15	941
Basic metal products . .	29	1,432	378	434	251	515	139			3,210
Fabricated metal products .	31	560	497	171	141	135	20	3	6	1,532
Transport equipment . .	32	495	1,093	235	414	51	8	1	2	2,297
Other machinery and equipment	33	1,085	938	161	238	90	7			2,521
Miscellaneous manufacturing	34	377	460	59	66	27	4			994
Total manufacturing .	1975–76	8,331	7,565	2,851	2,012	1,543	577	83	44	23,007
	1974–75	7,815	7,024	2,542	1,807	1,332	560	70	47	21,196
	1973–74	7,135	6,486	2,100	1,651	1,116	495	46	39	19,067

(*a*) Australian Standard Industrial Classification.

Stocks

Statistics on the value of opening and closing stocks at 30 June are shown in the following table. Figures include all the stocks of materials, fuels, etc., and finished goods and work-in-progress of the establishment whether located at the establishment or elsewhere.

MANUFACTURING ESTABLISHMENTS—OPENING AND CLOSING STOCKS BY INDUSTRY SUB-DIVISION, 1975-76(*a*) AND TOTAL MANUFACTURING, 1973-74 AND 1974-75(*a*)

($ million)

Industry sub-division	*ASIC code(b)*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
OPENING STOCKS AT 30 JUNE 1975										
Food, beverages and tobacco	21–2	320	382	100	132	33	33	1	1	1,003
Textiles	23	80	126	6	11	2	14	..	..	240
Clothing and footwear. .	24	85	130	12	13	2	..	..	..	243
Wood, wood products and furniture. . . .	25	79	64	34	35	20	27	..	1	260
Paper and paper products, printing	26	155	138	32	23	14	30	..	3	395
Chemical, petroleum and coal products. . . .	27	312	189	37	17	35	11	..	..	601
Non-metallic mineral products	28	97	52	27	15	20	4	32	2	216
Basic metal products . .	29	451	105	79	87	88	67			908
Fabricated metal products .	31									
Transport equipment . .	32	176	180	43	33	29	7	1	2	471
Other machinery and equip-	33	162	379	65	152	11	5	..	1	775
ment	34	494	475	55	99	37	2			1,163
Miscellaneous manufacturing	.	121	144	14	21	6	1			307
Total manufacturing .		2,532	2,364	504	638	298	201	34	9	6,581
CLOSING STOCKS AT 30 JUNE 1976										
Food, beverages and tobacco	21–2	324	396	113	149	38	34	1	1	1,057
Textiles	23	89	139	7	14	4	14	..	..	267
Clothing and footwear. .	24	95	154	14	16	2	..	..	..	282
Wood, wood products and furniture. . . .	25	92	72	38	41	24	29	..	1	297
Paper and paper products, printing	26	140	134	28	22	15	24	..	3	367
Chemical, petroleum and coal products. . . .	27	316	176	41	16	29	12	..	..	590
Non-metallic mineral products	28	109	57	34	19	24	5	33	2	249
Basic metal products . .	29	538	130	110	102	123	70			1,105
Fabricated metal products .	31	195	197	45	40	33	6	1	2	520
Transport equipment . .	32	164	377	75	133	13	6	..	1	768
Other machinery and equipment	33	493	491	68	104	42	3			1,202
Miscellaneous manufacturing	34	126	149	17	19	7	1			319
Total manufacturing .	.	2,680	2,473	591	676	354	205	36	10	7,023
Opening stocks . . .	1974–75	2,052	1,919	395	495	218	135	18	9	5,241
	1973–74	1,675	1,553	337	404	191	117	17	6	4,299
Closing stocks . . .	1974–75	2,529	2,344	503	634	297	190	34	10	6,543
	1973–74	2,062	1,915	397	502	224	134	26	8	5,268

(*a*) *See* 'Manufacturing industry statistics from 1968–69', page 425. (*b*) Australian Standard Industrial Classification.

Value added

The statistics on 'value added' contained in the following table have been calculated by adding to the value of turnover the increase (or deducting the decrease) in the value of stocks, and deducting the value of purchases, transfers in and selected expenses. A more detailed description of the method of deriving 'value added' is given on page 427.

MANUFACTURING ESTABLISHMENTS—VALUE ADDED, BY INDUSTRY SUB-DIVISION, 1975-76, AND TOTAL MANUFACTURING, 1973-74 AND 1974-75

($ million)

Industry sub-division	*ASIC code(a)*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Food, beverages and tobacco	21–2	913	973	628	252	195	99	4	8	3,074
Textiles	23	169	296	15	26	8	28	..	..	542
Clothing and footwear	24	281	471	36	41	11	2	..	..	842
Wood, wood products and furniture	25	329	244	125	113	93	72	1	5	982
Paper and paper products, printing	26	529	468	124	103	65	78	2	22	1,391
Chemical, petroleum and coal products	27	645	377	86	51	78	25	..	..	1,262
Non-metallic mineral products	28	298	254	119	78	89	21	32	7	870
Basic metal products	29	867	225	184	136	132	88			1,658
Fabricated metal products	31	515	479	144	116	107	16	3	7	1,387
Transport equipment	32	481	814	146	285	54	15	4	3	1,795
Other machinery and equipment	33	1,004	775	143	218	90	8			2,243
Miscellaneous manufacturing	34	340	390	52	65	22	4			873
Total manufacturing	1975–76	6,371	5,765	1,800	1,486	944	456	46	53	16,921
	1974–75	5,899	5,131	1,600	1,335	780	404	41	49	15,240
	1973–74	5,184	4,546	1,220	1,110	658	340	51	40	13,149

(*a*) Australian Standard Industrial Classification.

Number of establishments

The following table shows the number of establishments in each State in operation at 30 June for the years indicated. These figures relate to manufacturing establishments as such and do not include the numbers of separately located administrative offices and ancillary units.

MANUFACTURING ESTABLISHMENTS—NUMBER OF ESTABLISHMENTS IN OPERATION AT 30 JUNE 1976(*a*) BY INDUSTRY SUB-DIVISION, AND TOTAL MANUFACTURING 1973-74 AND 1974-75(*a*)

Industry sub-division	*ASIC code(b)*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Food, beverages and tobacco	21–2	1,054	992	646	384	311	118	14	16	3,535
Textiles	23	247	332	39	38	28	16	..	..	700
Clothing and footwear	24	961	1,219	118	78	57	12	..	..	2,445
Wood, wood products and furniture	25	1,327	1,083	647	337	397	219	9	21	4,040
Paper and paper products, printing	26	1,125	875	232	194	154	46	4	20	2,650
Chemical, petroleum and coal products	27	429	280	62	59	63	20	..	..	913
Non-metallic mineral products	28	541	367	248	147	166	58	19	17	1,557
Basic metal products	29	212	176	59	49	37	11			550
Fabricated metal products	31	1,553	1,087	469	367	345	80	17	19	3,937
Transport equipment	32	400	427	163	143	137	27	6	13	1,301
Other machinery and equipment	33	1,644	1,299	263	315	231	40			3,805
Miscellaneous manufacturing	34	836	737	176	176	127	20			2,074
Total manufacturing	1975–76	10,329	8,874	3,122	2,287	2,053	667	69	106	27,507
	1974–75	10,134	8,924	3,008	2,131	1,974	630	68	104	26,973
	1973–74	13,809	12,070	4,290	2,984	2,818	935	102	135	37,143

(*a*) *See* 'Manufacturing industry statistics from 1968-69', page 425. (*b*) Australian Standard Industrial Classification.

Electricity and gas establishments

As mentioned on page 425 the electricity and gas industries, which were previously included in the Annual Factory Census, have been the subject of separate censuses as from 1968–69. In addition, the Electricity and Gas Census has been extended to cover distribution as well as production. The following tables show statistics for the years 1971–72 and 1974–75. Censuses were not conducted for 1970–71, 1972–73 or for 1973–74.

Electricity and gas establishments

For electricity and gas, the basic census unit is an exception to the general concept of the standardised unit. Because of the nature of the activities of electricity and gas undertakings, the single operating location basis is not suitable. The establishment unit used consists of all locations, including administrative offices and ancillary units which are mainly concerned with the production and/or distribution of electricity or gas and which are operated by the undertaking in the one State. The use of this concept is one of the reasons for the number of electricity and gas establishments since 1968-69 being considerably less than in previous years. The other main reason is that until 1967-68 a number of electricity generating stations operated by enterprises principally for their own use were included. However, as from 1968-69, these generating stations have been included in the Electricity Census only if sales and transfers of electricity exceeded $100,000 in value.

Single establishment manufacturing enterprises with less than four persons employed

Summary of operations

The following table shows the summary of operations for single establishment manufacturing enterprises with less than four persons employed.

SINGLE ESTABLISHMENT MANUFACTURING ENTERPRISES WITH LESS THAN FOUR PERSONS EMPLOYED: SUMMARY OF OPERATIONS, BY INDUSTRY SUB-DIVISION: AUSTRALIA, 1974–75(*a*) AND 1975–76(*a*)

1974–75

Industry sub-division	*ASIC code (b)*	*Number of establishments operating at end of June*	*Persons employed(c)*			*Wages and salaries*	*Turnover*	*Stocks at 30 June*		*Purchases, transfers in and selected expenses*	*Value added*	*Fixed capital expenditure(d)*
			Males	*Females*	*Total*			*Opening*	*Closing*			
			No.	No.	No.	$m	$m	$m	$m	$m	$m	$m
Food, beverages and tobacco . .	21–2	665	959	483	1,442	3.3	34.8	2.6	2.9	22.6	12.6	1.3
Textiles . .	23	165	208	133	341	0.7	5.9	0.7	0.7	3.3	2.6	0.1
Clothing and footwear . .	24	432	365	529	894	2.6	13.4	1.7	1.3	7.0	6.0	0.3
Wood, wood products and furniture . . .	25	2,183	3,397	789	4,186	8.9	57.9	3.6	4.2	28.9	29.7	2.2
Paper and paper products, printing	26	1,065	1,386	741	2,127	6.5	33.2	1.9	2.1	15.6	17.9	0.8
Chemical, petroleum, and coal products . .	27	251	347	146	493	2.0	11.6	1.5	1.7	7.1	4.7	0.1
Non-metallic mineral products .	28	364	589	130	719	2.2	17.5	0.8	0.9	10.9	6.6	0.6
Basic metal products . .	29	75	148	27	175	0.8	5.0	0.2	0.2	3.1	1.9	0.1
Fabricated metal products . .	31	1,516	2,483	578	3,061	9.1	53.0	3.8	4.4	27.6	25.9	1.6
Transport equipment . .	32	446	693	181	874	2.3	15.7	1.5	1.9	8.9	7.2	0.5
Other machinery and equipment .	33	1,398	2,133	640	2,773	10.2	48.8	4.1	4.9	24.8	24.8	1.7
Miscellaneous manufacturing .	34	1,303	1,763	722	2,485	5.9	37.4	3.9	4.2	19.0	18.7	1.4
Total manufacturing .		9,863	14,471	5,099	19,570	54.5	334.3	26.2	29.5	178.9	158.7	10.5

1975–76

Industry sub-division	*ASIC code(b)*	*Number of establishments operating at end of June*	*Persons employed(c)*			*Wages and salaries*
			Males	*Females*	*Total*	
			No.	No.	No.	$m
Food, beverages and tobacco . . .	21–2	633	942	481	1,423	3.0
Textiles	23	179	215	152	367	0.9
Clothing and footwear	24	491	429	587	1,016	2.6
Wood, wood products and furniture .	25	2,265	3,584	795	4,379	9.3
Paper and paper products, printing . .	26	1,085	1,436	720	2,156	6.1
Chemical, petroleum and coal products .	27	239	324	135	459	1.7
Non-metallic mineral products . .	28	370	586	139	725	2.1
Basic metal products	29	82	148	26	174	0.6
Fabricated metal products . . .	31	1,713	2,834	638	3,472	10.0
Transport equipment	32	473	785	146	931	2.2
Other machinery and equipment . .	33	1,417	2,186	631	2,817	9.0
Miscellaneous manufacturing . . .	34	1,393	1,926	747	2,673	5.4
Total manufacturing . . .		**10,340**	**15,395**	**5,197**	**20,592**	**52.9**

(*a*) *See* 'Manufacturing industry statistics from 1968–69', page 425. (*b*) Australian Standard Industrial Classification. (*c*) Including working proprietors. (*d*) Outlay on fixed tangible assets less disposals.

ELECTRICITY AND GAS ESTABLISHMENTS(*a*), SUMMARY OF OPERATIONS STATES AND TERRITORIES, 1971-72 AND 1974-75

State or Territory	Number of establishments operating during year	Persons employed(*b*) Males (No.)	Persons employed(*b*) Females (No.)	Persons employed(*b*) Total (No.)	Wages and salaries ($m)	Turnover (*c*) ($m)	Stocks at 30 June Opening ($m)	Stocks at 30 June Closing ($m)	Purchases, transfers in and selected expenses ($m)	Value added ($m)	Fixed capital expenditure(*d*) ($m)
					1971–72						
New South Wales—											
Electricity	49	23,469	2,395	25,864	140	707	50	54	345	367	154
Gas	23	2,352	524	2,876	13	49	3	3	18	30	4
Victoria—											
Electricity	13	16,409	1,816	18,225	99	375	27	28	136	239	116
Gas	4										
Queensland—											
Electricity	21	8,038	837	8,875	45	194	13	14	79	116	66
Gas	7	565	104	669	3	12	1	1	5	7	1
South Australia—											
Electricity	14	6,174	358	6,532	34	106	9	9	29	78	42
Gas	2										
Western Australia—											
Electricity	46	4,275	331	4,606	23	82	8	8	23	60	81
Gas	2										
Tasmania—											
Electricity	3	2,727	244	2,971	15	48	5	5	2	46	35
Gas	2										
Northern Territory—											
Electricity	6	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)
Gas	. .										
Australian Capital Territory—											
Electricity	1										
Gas	. .										
Australia—											
Electricity	**153**	**57,089**	**5,391**	**62,480**	**332**	**1,444**	**105**	**112**	**591**	**861**	**452**
Gas	**40**	**7,409**	**1,298**	**8,707**	**41**	**148**	**10**	**11**	**57**	**91**	**43**
					1974–75						
New South Wales—											
Electricity	47	22,988	2,370	25,358	218	974	73	83	462	522	173
Gas	22	2,385	550	2,935	22	79	9	16	36	51	36
Victoria—											
Electricity	13	17,025	1,763	18,788	167	563	30	39	206	366	121
Gas	1										
Queensland—											
Electricity	20	8,151	858	9,009	78	319	15	17	137	184	59
Gas	8	476	64	540	4	17	1	1	7	10	2
South Australia—											
Electricity	10	5,764	340	6,104	52	145	11	13	57	92	35
Gas	2										
Western Australia—											
Electricity	16	4,964	399	5,363	41	145	12	15	55	94	57
Gas	2										
Tasmania—											
Electricity	2	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)
Gas	2										
Northern Territory—											
Electricity	6										
Gas	. .										
Australian Capital Territory—											
Electricity	1										
Gas	. .										
Australia—											
Electricity	**115**	**57,273**	**5,318**	**62,591**	**545**	**2,091**	**136**	**161**	**881**	**1,235**	**465**
Gas	**37**	**7,662**	**1,332**	**8,994**	**71**	**254**	**20**	**31**	**114**	**151**	**69**

(*a*) Covers production and distribution. (*b*) At end of June. (*c*) In some States electricity is produced by certain undertakings and sold to other undertakings for distribution. In these States sales of electricity are duplicated due to the inclusion of the bulk sales to these distributors. (*d*) Outlay on fixed tangible assets less disposals. (*e*) Not available for publication. Included in total for Australia.

Principal factory products

The factory production of certain commodities is shown in the monthly and quarterly publications of the ABS, and in the annual publication, *Manufacturing Commodities, Selected Principal Articles Produced* (8365.0). A more comprehensive list of articles produced is contained in the annual publication, *Manufacturing Commodities, Principal Articles Produced* (8303.0).

The following table shows the total recorded production of some of the principal articles (i.e. of those for which production can be represented in quantitative terms) manufactured in Australia. A more complete list, where available, is published in ABS bulletin 8303.0 mentioned above.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS: AUSTRALIA

Commodity code	*Article*		*1972–73*	*1973–74*	*1974–75*	*1975–76p*
	Acid (in terms of 100%)—					
401.29	Hydrochloric	tonnes	40,719	46,668	43,419	48,046
401 37	Nitric	,,	149,092	185,646	(*a*)	(*a*)
401.57	Sulphuric	'000 tonnes	2,266	2,434	1,730	1,281
171.03, 04, 07, 08	Aerated and carbonated waters	'000 litres	861,070	884,757	845,418	892,260
	Air-conditioning equipment—					
657.03, 05	Room air conditioners (refrigerated)	No.	29,506	49,229	52,737	31,666
657.13, 15	Room air coolers (evaporative coolers)	,,	44 033	105,317	128,728	85,752
657.21, 22, 23	Package unit air conditioners	,,	8,623	20,037	21,604	17,901
	Animal feeds—					
	From wheat—					
152.06	Pollard	'000 tonnes	232	242	269	254
159.11	Poultry pellets and crumbles	,,	925	1,093	1,111	1,074
159.15	Poultry mash	,,	237	239	225	240
159.21	Other prepared stock and poultry feed	,,	564	552	501	480
159.01	Canned dog and cat foods	'000 kg	118,312	126,374	133,845	150,867
159.02	Dog biscuits (whole)	,,	18,718	19,995	20,000	17,435
159.03	Other manufactured dog and cat food	,,	31,646	38,307	40,518	42,813
475.04, 06, 07, 85	Asbestos cement building sheets (finished)	'000 m^2	38,646	43,723	42,424	39,977
	Bags, leather, fibre, etc.—					
	Handbags—					
864.31	Leather	'000	371	334	273	336
864.33	Plastic	,,	1,271	1,279	1,316	1,158
864.39	Other	,,	359	346	355	410
946.01–52	Hessian and calico bags	'000 doz	2,085	2,689	1,858	1,121
864.11–19	Suitcases, kitbags and trunks	'000	1,707	1,543	1,290	1,149
	Bath heaters—					
652.01	Electric	No.	7,001	8,679	6,027	8,819
652.03, 06, 08	Gas	,,	2,767	2,346	2,586	810
652.05	Solid fuel	,,	3,779	3,932	1,978	1,669
779.02–36	Bathing suits(*b*)	'000 doz	322	345	228	268
	Baths (exclude infants baths)—					
671.03	Pressed steel—Enamelled	'000	153	165	130	142
671.01, 04, 08	Other (exclude pressed steel, galvanised)	,,	51	47	45	37
	Batteries, wet cell type—					
685.13, 15	Auto (S.L.I.) 6 volts	'000	372	375	350	314
685.17, 19	Auto (S.L.I.) 12 volts	,,	2,089	2,168	2,317	2,468
685.33, 35	Radio, homelighter, fencer	No. of 2 volt cells	47,194	50,233	38,198	26,159
685.43-65	Traction, plant and other	,,	140,399	196,132	192,349	163,767
172.02, 04, 06	Beer (excluding waste beer)	mil. litres	1,756	1,868	1,954	1,916
064.21	Biscuits	'000 kg	117,701	120,628	119,707	117,858
372.52–56, 374 51–57	Blankets, Woollen—Pure and Mixtures	'000	1,688	1,700	1,470	2,022
152.02	Bran (wheaten)	'000 tonnes	126	124	137	130
172.21	Brandy	'000 litre al	3,561	2,401	1,608	1,552
777.41, 49	Brassieres	'000 doz	807	812	596	723
066.01–31	Breakfast food, cereal (ready to eat)	tonnes	57,366	58,780	62,531	67,344
472 01, 03	Bricks, clay	million	1,881	2,050	1,722	1,815
261.41	Briquettes, brown coal	'000 tonnes	1,221	1,164	1,092	946
051.30, 052.20	Butter—from cream (exclude whey cream)	'000 kg	184,081	174,122	155,689	145,916
773.51, 53, 74, 75, 83	**Cardigans**, jumpers, etc.	'000 doz	2,050	2,041	1,739	1,965
474.02	Cement, Portland	'000 tonnes	5,097	5,412	5,273	5,100
053.45	Cheese (non-processed)	'000kg	93,445	95,793	98,630	103,315
	Cloth (including mixtures)—					
373.10–52	Cotton(*c*)	'000 m^2	46,391	50,361	43,822	44,708
374.02–16	Rayon and acetate	,,	22,957	23,082	16,279	16,936
374.20–34	Synthetic (non-cellulosic)	,,	85,761	107,278	94,725	102,445
372 02–50	Wool (excluding blanketing and rug)	,,	16,424	16,427	10,607	14,297
435.22	Coke—Metallurgical	'000 tonnes	4,926	4,927	5,103	(*a*)
475.90	Concrete, ready mixed	'000 m^3	10,403	10,849	10,229	10,333
	Confectionery—					
104.06–18	Chocolate	'000 kg	50,151	55,799	61,690	55,251
104.21–29	Other	,,	61,191	60,993	62,740	63,273
452.04	Copper, refined(*d*)	'000 tonnes	136	149	178	164

(*a*) Not available for publication. (*b*) Includes swim shorts. Excludes infants' and babies' swim-wear. (*c*) Excludes tyre-cord fabric and towelling. (*d*) Primary origin only.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS: AUSTRALIA—*continued*

Commodity code	*Article*		*1972–73*	*1973–74*	*1974–75*	*1975 76p*
171.06, 10	Cordials and syrups	'000 litres	81,217	92,833	89,203	105,259
777.01–29	Corsets and corselets	'000 doz	n.a.	237	197	188
611.01	Cycles (complete)	'000	166	193	193	217
804.01	Dentifrices (toothpaste)	'000 kg	5,266	5,653	6,410	6,704
499.42	Electricity	mil. kWh	64,802	69,743	73,933	76,597
523.76–78	Electrodes for manual welding	'000 kg	21,000	24,890	25,704	22,997
502.22–39	Engines, spark and compression ignition(*a*)	'000	430	484	434	342
	Essences, flavouring—					
139.31	Domestic	'000 litres	398	393	432	332
139.35	Industrial	"	5,409	6,310	4,304	4,609
696.01, 03, 05	Fans, electric (propeller type)	No.	457,110	622,993	701,375	541,766
045.01, 51	Fish, canned (including fish loaf)	'000 kg	7,136	6,140	9,587	7,273
	Floorboards—					
332.06	Australian timber	m^3	331,516	320,319	280,818	276,536
332.08	Imported timber	"	366	286		
	Floor coverings—					
841.01–07	Textile	'000 m^2	25,671	30,747	24,166	31,939
841.31–61, 69	Smooth surface and embossed	"	13,057	11,893	9,589	7,366
841.67, 68	Timber parquetry	"	224	201	136	121
841 85	Underfelts, underlays, etc.(*b*)	"	16,454	17,116	15,172	11,641
692.21, 23	Floor polishers, electric	No.	30,816	30,234	25,277	23,586
	Flour—					
068.01	Self-raising	'000 kg	38,496	43,057	46,459	36,767
062.01, 10, 32	Wheaten(*c*)	'000 tonnes	1,134	1,178	1,247	1,242
	Fruit juices, natural—					
074.61–69, 79	Single strength	'000 litres	186,769	166,327	179,777	187,762
074.76, 89	Concentrated(*d*)	"	13,939	7,634	11,792	16,269
781.06–29	Gloves, work(*e*)	'000 doz pairs	3,438	3,844	3,859	3,818
127.21	Glucose	'000 kg	57,414	59,661	58,807	51,880
832.58, 59	Golf clubs	doz	59,725	64,769	42,186	52,324
	Handkerchiefs					
786 01	Men's	'000 doz	1,215	1,213	1,156	(*k*)
786 11	Women's	"	1,212	1,395	594	498
	Heaters, room—					
651 01, 03	Solid fuel	No.	6,823	5,246	3,842	3,547
651 11 20	Electric radiators and fires	'000	801	845	739	648
651 04, 05, 21, 22, 26, 27	Gas fires and space heaters	No.	67,583	74,764	65,591	61,620
775	Hosiery—					
	Women's (including panty hose)	'000 doz pairs	8,920	(*k*)	(*k*)	(*k*)
	Men's	"	1,975	2,172	1,753	2,007
	Childrens' and infants'	"	1,244	1,189	982	1,120
051.61	Ice cream(*f*)	'000 litres	210,387	215,063	206,652	213,275
051.87, 89, 90	Infants', invalids' and health beverages from cows milk(*g*)	'000 kg	26,882	24,247	29,487	29,805
	Ink, printing—					
419.31	News	"	10,940	9,486	8,683	6,596
419.43–59	Other	"	13,880	(*k*)	12,424	13,502
	Iron and steel—					
442.04, 08	Pig iron	'000 tonnes	7,021	7,444	7,531	7,331
442 80–83	Steel ingots	"	7,209	7,504	7,856	7,832
442 28	Blooms and slabs (*h*)	"	6,180	6,467	6,594	(*k*)
693.51, 61, 63	Irons, electric (hand, domestic)	'000	643	675	798	746
076.60	Jams (including conserves, jellies, etc.)	'000 kg	34,769	32,745	31,588	31,121
391.04	Lard	"	2,736	3,207	3,210	2,466
	Lawn mowers—					
699.52, 53	Petrol, rotary	No.	340,656	395,399	353,512	339,560
699.41, 45, 55, 61	Other types(*i*)	"	15,883	21,769	19,340	19,559
453 04	Lead refined(*j*)	'000 tonnes	174	201	171	168

(*a*) Petrol and diesel. Excludes car, motor cycle, truck, tractor, aero, and marine engines. (*b*) Needled (or bonded) felts of jute or jute hair mixtures (for all purposes). (*c*) Includes wheatmeal for baking and sharps and other flour. (*d*) Excludes grape must. (*e*) Excludes fabric liners for dipped gloves but includes moulded or heat-sealed work gloves. (*f*) Includes ice-cream combined with other confections. Including those aerated milk-based confections which contain 10% or more butterfat. (*g*) Includes malted milk and milk sugar (lactose). (*h*) Primary mills output. (*i*) Petrol cylinder, electric and hand. (*j*) Includes lead content of lead alloys from primary sources, but excludes lead-silver bullion. (*k*) Not available for publication.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS: AUSTRALIA—*continued*

Commodity code	*Article*		*1972–73*	*1973–74*	*1974–75*	*1975–76p*
	Leather—					
	Dressed or finished—					
301.43–65	Chrome tanned (including retanned)	'000 m^2	5,489	5,982	5,059	5,309
301.31–37, 83–89	Vegetable tanned, by weight	'000 kg	3,873	n.a.	n.a.	n.a.
301.67, 69	Vegetable tanned, by measurement	'000 m^2	191	165	136	141
	Lime—					
275.43, 45	Crushed	tonnes	222,598	239,047	201,483	228,220
479.18	Hydrated	'000 tonnes	147	130	120	110
479.12	Quick	"	448	539	563	564
802.21	Lipstick	'000 kg	42	53	40	41
063 11–21, 31	Malt (excluding extract)	'000 tonnes	339	378	442	403
	Margarine—					
121.01	Table	'000 kg	21,615	25,963	28,763	46,482
121.06, 08	Other	"	55,972	57,120	54,872	56,636
	Mattresses—					
844.22, 25, 27	Inner spring	'000	738	751	652	680
844 42, 45, 47	Rubber	"	34	39	(*d*)	54
844.52–67	Other	"	477	583	521	504
027.02–77	Meat, canned(*a*)	'000 kg	51,019	52,903	42,396	43,878
	Meters (domestic)—					
702.01	Electricity consumption	'000	287	312	293	248
703 01	Gas consumption	"	65	66	65	62
703.11	Water consumption	"	167	193	207	189
	Milk, condensed, concentrated and evaporated—					
051.21, 22	Full cream, coffee and milk, sweetened	'000 kg	14,635	13,392	14,113	15,364
051.23, 052.42	Full cream, unsweetened	"	38,293	33,203	34,592	34,350
051.28	Skim	"	11,943	15,878	19,481	22,312
	Milk powder in powered form—					
051.72, 73	Full cream	"	37,080	36,991	43,126	43,977
051.76–79	Skim	"	117,576	143,789	160,954	149,097
051.81, 82	Buttermilk or mixed skim and buttermilk	"	15,422	16,199	11,516	11,676
503.13–32	Motors, electric (excl. automotive)	'000	3,680	4,658	4,536	4,144
	Motor vehicles, finished—					
581 02–08	Cars	No.	319,561	331,303	319,877	308,537
581 10–16	Station wagons	"	50,017	51,028	57,076	55,289
582.04	Utilities	"	31,411	29,215	32,526	26,031
582.06	Panel vans	"	25,456	26,715	29,147	28,195
582.08–24	Truck and truck-type vehicles	"	5,496	4,786	7,869	7,488
	Motor vehicles, partly finished—					
581.22–28 582.31, 32	Cars, station wagons, utilities vans	"	1,729	1,424	1,145	1,489
582 33–46	Trucks and truck-type vehicles	"	20,256	24,943	25,023	22,834
589.81–89	Motor vehicle safety belts	'000	3,139	2,997	3,009	2,193
465.16, 17	Nails	"	25,259	27,351	23,295	22,683
	Oatmeal and rolled oats—					
062.61, 63	For porridge, etc.	tonnes	14,419	13,187	15,171	14,863
393 394	Oils and fats, crude—Vegetable	'000 kg	75,390	75,048	75,139	72,395
	Paints, etc.—					
	Architectural and decorative(*b*)—					
	Solvent thinned—					
410.01	Primers and undercoats	'000 litres	13,139	12,797	11,935	12,596
410.03, 05. 07	Finishing coats	"	31,957	32,524	29,892	30,831
	Water thinned—					
410 11, 13, 15	Plastic latex	"	27,241	28,908	27,766	32,269
410.17	Other water based	"	377	322	245	254
410.25	Tinting colours (all types) packed for sale or transfer out	"	407	445	522	508
	Paper—					
351.11	Newsprint	'000 tonnes	199	204	196	206
351.18–79	Other	"	548	653	574	536
352.11–33	Paperboard	"	411	444	378	384
336.12	Particle board (resin bonded)	'000 m^3	(*c*)	(*c*)	389	460
975.04, 09, 11	Perambulators, pushers and strollers	'000	197	207	(*d*)	(*d*)
479.22	Plaster of paris	'000 tonnes	342	361	339	347
479.32, 33	Plaster sheets—Non-acoustic	'000 m^2	39,151	44,105	42,372	44,794
334.32, 34, 36. 38	Plywood, 1 mm basis	"	114,173	n.a.	n.a.	78,513

(*a*) Excludes poultry and baby food. (*b*) Excludes heavy duty coatings. (*c*) Not available on this basis. (*d*) Not available for publication.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS: AUSTRALIA—*continued*

Commodity code	*Article*		*1972–73*	*1973–74*	*1974–75*	*1975–76p*
	Preserves—					
	Fruit					
076.01–50	Canned or bottled	'000 kg	272,983	213,112	226,210	175,317
074.01	Pulp and puree—single strength	"	3,876	4,708	4,381	5,598
	Vegetables—					
094.02–47	Canned or bottled	"	105,933	121,940	133,131	123,677
092.02, 06, 10, 19	Quick frozen	"	94,380	93,250	96,235	119,212
	Pyjamas—					
774.20, 22, 27, 29	Men's, youth's and boy's (suits only)	'000 doz	413	414	350	339
774.50–59, 64, 66	Women's, maid's and girl's (incl. nightdresses)	"	814	853	875	778
832.65, 85	Racquet frames (all types)	doz.	19,896	19,952	14,639	12,792
643.01–37	Radio receiving sets (including radiograms)	No.	879,848	n.a.	354,169	117,350
	Records (phonograph)—					
646.35, 65	Single play	'000	5,470	6,050	6,324	5,512
646.37, 41, 67, 71	Extended play	"	862	676	510	328
646.43, 45, 73, 75	Long play	"	15,666	20,212	21,860	21,245
657.32, 41	Refrigerators, domestic, electric and gas	"	236	274	247	230
403,404	Resins, plastics and synthetic, for all purposes	'000 tonnes	339	386	436	379
061.67, 69	Rice, polished, unpolished and broken	'000 kg	216,187	203,536	228,895	298,051
372.70, 72 374.59	Rugs	'000	126	133	117	159
123.18–25	Sauce	'000 litres	27,392	30,434	34,259	28,142
062.04	Semolina	'000 tonnes	22	25	24	27
773.02–09	Shirts (men's, youths' and boys'), collar attached(*a*)	'000 doz	700	770	576	595
653.01	Sink heaters, electric	No.	9,509	10,463	7,830	9,838
671.11–18	Sinks, steel and other (standard size)	"	253,758	262,275	(*f*)	246,472
805.01–13	Soap, for personal toilet use (*b*)	tonnes	29,069	31,433	29,357	28,464
	Soup—					
122.02, 09	Canned	'000 litres	48,825	51,202	53,268	37,572
122.13, 15	Dry-mix	'000 kg	6,693	9,048	7,086	5,524
127.11–19	Starch (incl. cornflour)	"	143,799	164,787	149,012	130,953
401.53	Stearine (stearic acid)	"	5,620	5,854	4,758	4,602
461.20	Steel, constructional, fabricated	tonnes	651,204	600,138	688,345	730,277
	Stoves, ovens and ranges, domestic cooking—					
661.01–11	Electric(*c*)	No.	247,460	258,984	257,732	247,148
662.26, 31, 34, 36, 42, 43	Gas(*d*)	"	92,996	113,649	105,454	108,448
662.01, 03	Solid fuel	"	6,200	5,150	4,781	4,048
	Sugar—					
102.01	Raw	'000 tonnes	2,811	2,531	2,849	2,850
102.12	Refined	"	653	657	709	702
405.36	Sulphate of ammonia	tonnes	227,864	246,014	275,224	223,784
415.07	Superphosphate(*e*)	'000 tonnes	4,962	5,288	3,092	2,316
803.61	Talcum powder	'000 kg	4,148	4,133	4,409	4,173
	Tallow (including dripping), rendered—					
391.15	Edible	"	94,892	88,655	74,335	87,708
391.24	Inedible	"	278,485	230,331	272,374	309,353
643.49–67	Television sets	No.	396,540	446,988	457,758	533,585
645.51–58	Television picture tubes incorp. new screens	"	355,307	393,287	256,089	45,606
	Tiles, roofing—					
475.30 472.12	Concrete Terracotta	'000	222,970	241,386	202,209	219,663
	Timber—					
	From native logs—					
331.01–07	Hardwood, etc	'000 m³	2,560	2,563	2,407	2,372
331.09–19	Softwood	"	848	773	823	856
331.23, 25	From imported logs	"	5	1	(*f*)	2
661 21, 23	Toasters, electric (domestic)	No.	453,637	547,591	613,606	592,344
183.21–28	Tobacco	'000 kg	2,671	2,399	2,430	2,101
094.51	Tomato juice	'000 litres	9,786	9,845	14,208	7,229
094.53	Tomato paste and puree	"	9,342	15,367	(*f*)	(*f*)
373.58–64	Towels	'000 doz	889	1,020	779	784
671.51–59	Toilet cisterns	No.	463,828	545,346	444,590	494,273
683.03–11	Transformers, chokes and ballasts, for distribution of power and light, etc.	"	11,754	13,397	17,181	15,385
763.01	Umbrellas, street and general purpose	'000	735	896	925	666
773.90–97 774.01–18, 36–49, 61–73, 91–97	Underwear (men's, women's, children's)	'000 doz	6,884	8,430	6,797	6,289

(*a*) Business or formal. (*b*) Excludes powdered shampoo. (*c*) Includes wall ovens but excludes cooking tops and portable units. (*d*) Upright and elevated (with ovens) including wall ovens, but excluding hotplates, stovettes, etc. (*e*) Includes ammonium phosphate. (*f*) Not available for publication.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS: AUSTRALIA—*continued*

Commodity code	*Article*		*1972–73*	*1973–74*	*1974–75*	*1975–76p*
692.02,04	**Vacuum cleaners (domestic)**	'000	209	240	250	251
	Wash basins—					
671.37	**Earthenware**	„	278	292	279	276
693.02-18	**Washing machines, household, electric**	„	340	375	333	351
	Weatherboards—					
332.12	**Australian timber**	m^3	35,083	34,148	32,858	33,457
332.14	**Imported timber**	„	5,944	2,291	1,376	2,317
152.14	**Wheatmeal for stock feed**	'000 tonnes	496	621	636	539
519.01	**Wheelbarrows (metal)**	No.	169,400	179,841	159,099	182,794
	Wine, beverage—					
172.42	**Fortified**	'000 litres	54,536	49,747	66,022	68,586
172.46	**Unfortified**	„	115,738	133,602	158,078	164,014
341.31-45	**Wood pulp (air dried)**	'000 tonnes	532	617	577	555
242.07-11	**Wool, scoured or carbonised**	tonnes	59,338	53,687	52,899	69,272
242.33,35	**Wool tops, pure**	'000 kg	19,735	14,240	8,413	15,416
	Yarn (including mixtures)—					
364.11-50	**Cotton**	„	28,216	30,996	23,492	24,486
363.47-75	**Woollen**	„	17,914	17,721	13,837	16,247
363.17-31	**Wool worsted**	„	8,759	7,219	4,569	6,131
365.38-65	**Rayon and acetate, spun**	„	5,088	3,610	1,391	2,856
365.90, 366.03, 04, 16, 29, 30, 42, 55, 56, 88, 96, 97	**Synthetic (non-cellulosic) fibres spun**	„	11,467	15,080	11,271	14,961
457.04	**Zinc, refined(*a*)**	'000 tonnes	299	282	243	205

(*a*) Primary origin only includes small quantities of zinc dust.

Enterprise and Industry Concentration Statistics

Industry statistics shown earlier in this chapter relate to *establishments*. Statistics are also available from the 1968-69 Economic Censuses for *enterprises* engaged in manufacturing industry. A description of the statistics and broad summary tables are given in Year Book No. 61, pages 1077-81.

Similarly, *industry concentration* statistics have been published for 1968-69 and 1972-73. These aim to show the extent to which individual enterprise groups dominate particular industries. A description and summary tables of these statistics are given in Year Book No. 61, pages 1081-4 for 1968-69, and the publication *Manufacturing Census, Industry Concentration Statistics, Australia* (8207.0) for 1972-73.

Foreign Ownership and Control in Manufacturing Industry

Summary information on foreign ownership and control in manufacturing industry is shown in Chapter 24. More detailed statistics are available in *Foreign Control in Manufacturing Industry, Study of Large Enterprise Groups*, 1972-73 (*Advance Release*) (5314.0), *Foreign Control in Manufacturing Industry, Study of Large Enterprise Groups*, 1972-73 (5315.0), *Foreign Ownership and Control in Manufacturing Industry*, 1972-73 (*Advance Release*) (5321.0) and *Foreign Ownership and Control in Manufacturing Industry*, 1972-73 (5322.0).

INTERNAL TRADE

Wholesale Trade

For summary tables showing final figures from the 1968 69 census of Wholesale Trade *see* Year Book No. 61, pages 1070 2. Further and more detailed statistics are included in separate bulletins published by Central and State offices of ABS.

Retail Trade

Retail census

The definition of retail trade, for the purpose of the most recent retail census which was taken for the year ended 30 June 1974, is the resale of new and used goods to final consumers for personal and household consumption. For information and detailed tables relating to the 1973 74 Retail Census, reference should be made to Year Book No. 61, pages 1072-6, and census bulletins *Census of Retail Establishments and Selected Service Establishments* 1973 74—*Final Bulletins* (8614.0 to 8619.0, 8620.0 and 8621.0). Summary of operations details of establishments classified by industry group for Australia for 1973–74 are set out in the following table.

RETAIL ESTABLISHMENTS AND SELECTED SERVICE ESTABLISHMENTS: SUMMARY OF OPERATIONS, BY INDUSTRY GROUP, 1973-74

Industry group	*Number of establishments at 30 June 1974*	*Employment at end of June 1974(a)*			*Wages and salaries (b)*	*Retail sales*	*Wholesale sales*	*Other operating revenue*	*Turnover*
		Males	*Females*	*Persons*					
RETAIL ESTABLISHMENTS									
	No.	No.	No.	No.	$m	$m	$m	$m	$m
Department variety and general stores	1,672	36,721	85,582	122,303	407.2	2,399.8	85.0	52.1	2,536.9
Food stores	47,957	99,692	127,582	227,274	429.0	5,073.8	25.1	34.5	5,133.5
Clothing, fabrics and furniture stores	19,334	30,308	57,170	87,478	239.2	2,076.1	7.5	10.0	2,093.6
Household appliance and hardware stores	9,734	26,625	20,044	46,669	151.5	1,110.0	47.2	129.2	1,286.4
Motor vehicle dealers, petrol and tyre retailers	28,170	155,807	36,445	192,252	681.6	5,340.0	1,222.5	915.9	7,478.4
Other retailers	20,139	30,436	48,147	78,583	171.2	1,461.1	13.4	26.7	1,501.2
Total retail establishments	**127,006**	**379,589**	**374,970**	**754,559**	**2,079.7**	**17,460.9**	**1,400.7**	**1,168.4**	**20,030.1**
SELECTED SERVICE ESTABLISHMENTS									
Restaurants and licensed hotels	11,478	63,364	88,871	152,235	416.9	1,290.9	1.7	625.1	1,917.6
Licensed clubs	3,287	33,526	18,186	51,712	185.6	310.9	0.8	348.4	660.0
Hairdressing and beauty salons	9,349	5,896	20,562	26,458	46.7	8.0	..	117.9	125.9
Total selected service establishments	**24,114**	**102,786**	**127,619**	**230,405**	**649.2**	**1,609.8**	**2.5**	**1,091.3**	**2,703.6**
Total retail and selected service establishments	**151,120**	**482,375**	**502,589**	**984,964**	**2,729.0**	**19,070.7**	**1,403.2**	**2,259.8**	**22,733.7**

(*a*) At end of June; includes working proprietors but excludes unpaid helpers working at least 15 hours during the week. (*b*) Excludes drawings by working proprietors.

Retail surveys

In intercensal periods, estimates of the value of retail sales by broad commodity groups are obtained quarterly by means of sample surveys for each State and Australia.

The following table shows the value of retail sales of goods in each of the commodity groups specified. The figures have been obtained from a sample based on the 1973-74 Retail Census. More detailed information concerning the quarterly surveys of retail trade is contained in the quarterly publication *Retail Sales of Goods* (8503.0).

VALUE OF RETAIL SALES: COMMODITY GROUPS(*a*)

($ million)

Commodity group	*1974–75*	*1975–76*	*1976–77*
Groceries	2,647.7	3,145.8	3,701.6
Butchers' meat	1,040.8	1,107.3	1,268.2
Other food(*b*)	1,633.4	1,844.8	2,092.4
Total, food and groceries	*5,321.9*	*6,097.9*	*7,062.2*
Beer, wine and spirits	2,075.5	2,525.4	2,853.6
Clothing and drapery	2,589.7	2,897.1	3,234.3
Footwear	395.6	448.9	505.3
Hardware, china and glassware(*c*)	652.9	758.4	834.8
Electrical goods(*d*)	1,360.1	1,724.2	1,935.6
Furniture and floor coverings	925.4	1,067.5	1,192.3
Chemists' goods	893.7	1,043.8	1,130.6
Newspapers, books and stationery	587.3	679.0	778.2
Other goods(*e*)	1,413.2	1,640.2	1,829.1
Total (excluding motor vehicles, etc.)	**16,215.3**	**18,882.4**	**21,356.0**

(*a*) Excludes Northern Territory and Australian Capital Territory. (*b*) Includes fresh fruit and vegetables, confectionery, soft drinks, ice cream, cakes, pastry, cooked provisions, fish, and wrapped lunches. (*c*) Excludes basic building materials, builders' hardware and supplies such as tools of trade, paint, etc. (*d*) Includes radios, television and accessories, musical instruments, domestic refrigerators, etc. (*e*) Includes tobacco, cigarettes, etc., sporting goods, etc., but excludes grain and produce and business machines.

Retail sales of goods at constant prices

The following table shows series of the value of retail sales of goods at constant prices. The scope of the series at average 1968–69 prices is identical to that of the series at current prices based on the 1968–69 Retail Census, while the scope of the series at average 1974–75 prices is identical to that of the series at current prices based on the 1973–74 Retail Census.

A detailed description of the nature of these estimates at constant prices, and of the sources and methods used in preparing them, can be found in the Explanatory Notes of the June 1977 issue of *Retail Sales of Goods* (8503.0).

VALUE OF RETAIL SALES OF GOODS AT CONSTANT PRICES BY BROAD COMMODITY GROUPS(*a*)

($ million)

	At average 1968–69 prices(b)			*At average 1974–75 prices(c)*		
Broad commodity group	*1972–73*	*1973–74*	*1974–75*	*1974–75*	*1975–76*	*1976–77*
Food and drink	4,765.4	4,907.9	5,023.0	7,397.4	7,586.3	7,926.2
Clothing, hardware, electrical and furniture	3,587.4	4,040.2	4,115.1	5,923.7	6,143.9	6,182.0
Other	1,657.9	1,801.2	1,901.2	2,894.2	2,895.1	2,959.4
Total (excluding motor vehicles, parts, petrol, etc.)	**10,010.7**	**10,749.3**	**11,039.3**	**16,215.3**	**16,625.3**	**17,067.6**

(*a*) Excludes Northern Territory and Australian Capital Territory. (*b*) Series based on 1968–69 Retail Census. (*c*) Series based on 1973–74 Retail Census.

CHAPTER 18

ELECTRIC POWER

This chapter is divided into three major parts: the Introduction, which deals briefly with the resources, generation and distribution, and future development of electric power in Australia; the Snowy Mountains Hydro-electric Scheme; and the origins, development, present situation and new projects of electrical systems in each Australian State and internal Territory.

The information contained in the chapter relates to situations existing and projects contemplated, and may be considerably affected by changes in policy or plans, or by developments in the projects themselves. Greater descriptive and historical detail about the various systems is contained in earlier issues of the Year Book. For further details *see also* the annual reports of the respective authorities. Statistics on the electricity industry are included in tables in Chapter 17, Manufacturing and Internal Trade.

INTRODUCTION

Distribution of population and location of electric power resources in Australia

The two principal centres of population and industry in Australia, the metropolitan areas of Sydney and Melbourne, make the greatest demands for electric power, and their growth has been associated with the development of large deposits of coal located relatively close to the source of demand. This, together with the fact that the major water resources are also located in the south-eastern portion of Australia, materially influences the distribution of industrial population and the location of major electric power stations. By far the most important source of energy used in the production of electric power in Australia is coal.

Most of Australia is poorly supplied with water; only about 13 per cent receives an annual rainfall of 750 mm or more, and these areas are confined largely to Tasmania and to the narrow coastal strip along the east coast of the mainland. The only region on the mainland of Australia high enough to receive reliable winter snowfall, and from which, therefore, reasonably constant water supplies throughout the year can be expected, is the mountain chain which stretches from the high plateaux of south-eastern New South Wales to the north-eastern highlands of Victoria. The hydro-electric potential of this area is considerable; the two major projects in the area are the Snowy Mountains and Kiewa Schemes. Other hydro-electric potential does exist on the mainland on the rivers of the coastal areas of New South Wales and Queensland, but the amount available is smaller than the potential of the Alpine region. In Tasmania, hydro-electric resources have been estimated at about 50 per cent of the total Australian hydro-electric potential. On the mainland the chief source of energy is coal; in Tasmania it is water.

Electric power generation and distribution

At the beginning of this century Australia's electrical undertakings were carried on mainly by private enterprise, but with some measure of government control designed to provide standards of safety and to define the scope and obligations of the private organisations. A trend towards public ownership commenced during the 1914–18 War and became more pronounced after the 1939–45 War. By 1961 all major generating stations supplying the public were, in varying degrees, under the control of statutory organisations constituted with the object of unifying and co-ordinating the generation and distribution of electricity supplies. There are still a large number of small private and municipal enterprises generating power for supply to country towns, although central authorities are extending supply to these places wherever practicable. In many areas it has been, and remains, the practice for central authorities to sell power in bulk to local distributing organisations which undertake reticulation.

In addition to the private, local government and statutory organisations which generate and/or distribute electricity for sale, numerous firms generate power for use in their own establishments, particularly those engaged in mining remote from the main centres of population. This chapter, however, is concerned mainly with the activities of central electric stations, as the power regularly produced for such internal consumption is, in any case, a relatively small proportion of the total power produced. The measures taken by authorities to satisfy the demand created by the post-war growth in population and building and by developments in industry and commerce are described in the following pages.

SNOWY MOUNTAINS HYDRO-ELECTRIC SCHEME*

Snowy Mountains Hydro-electric Power Act 1949

In July 1949 the Commonwealth Government established the Snowy Mountains Hydro-electric Authority, and empowered it: to generate electricity by means of hydro-electric works in the Snowy Mountains Area; to supply electricity to the Commonwealth Government (i) for defence purposes, (ii) for consumption in the Australian Capital Territory; and to supply to a State, or to a State Authority, electricity not required for defence purposes or for consumption in the Australian Capital Territory.

The Snowy Mountains Act is supported by a detailed agreement between the States of New South Wales and Victoria and the Commonwealth Government with regard to the construction and operation of the Scheme, the distribution of power and water, charges to be made for electricity, and other such matters. The Snowy Mountains Council, established under the terms of the Agreement and consisting of representatives of the Commonwealth Government, the Authority and the two States, directs and controls the operation and maintenance of the permanent works of the Authority and the allocation of loads to generating stations.

Snowy Mountains Hydro-electric Scheme

The broad basis of the Snowy scheme is to transfer waters, which would otherwise flow to the sea unharnessed, from the Snowy River and its tributaries to the inland system so that the water may be used for irrigation and to provide power. It involves two main diversions: the diversion of the Eucumbene, a tributary of the Snowy, to the Upper Tumut River; and the diversion of the main stream of the Snowy River at Island Bend and Jindabyne to the Swampy Plain River. These two diversions divide the scheme geographically into two sections: the Snowy–Tumut Development and the Snowy–Murray Development (*see* plate 38 opposite). For purposes of both power production and irrigation it is necessary to regulate run-off, and this is achieved by the use of Lake Eucumbene (formed by the construction of Eucumbene Dam) and other storages to control the waters of the Eucumbene, Murrumbidgee, Tooma, and Tumut Rivers for the Snowy–Tumut Development and of the Snowy and Geehi Rivers for the Snowy–Murray Development. A sectional diagram of the scheme appears on plate 39, page 446.

Snowy–Tumut Development. This development comprises works for the diversion and regulation of the waters of the Eucumbene, Upper Tooma, Upper Murrumbidgee, and Upper Tumut Rivers and their combined development through a series of power stations down the Tumut River. A major dam has been constructed on the Eucumbene River to create Lake Eucumbene, which has an ultimate useable storage of 4,300 million cubic metres. The waters of the Upper Murrumbidgee River are diverted into Lake Eucumbene by a dam at Tantangara and a 17-kilometre tunnel from Tantangara Reservoir. From Lake Eucumbene the water flows through a 23-kilometre tunnel to Tumut Pond Reservoir on the upper reaches of the Tumut River, where it joins the waters of the Tumut River itself and the waters of the Tooma River diverted to Tumut Pond Reservoir by a diversion dam and a 14-kilometre tunnel.

From Tumut Pond Reservoir water is conveyed by pressure tunnel to Tumut 1 underground Power Station (capacity 320 MW), returned to the Tumut River, and then conveyed by another pressure tunnel to Tumut 2 underground Power Station (capacity 280 MW), thence discharging into Talbingo Reservoir, again on the Tumut River.

Tumut 3 Power Station, the largest station of the scheme (generating capacity 1,500 MW and pumping capacity 300 cubic metres per second), has been constructed below Talbingo Reservoir and discharges into Jounama Pondage on the Tumut River. This pondage provides a downstream pumping pool and also regulates discharges from Tumut 3 Power Station as required. Releases from Jounama Pondage then enter Blowering Reservoir formed by Blowering Dam. This dam, constructed by the Snowy Mountains Authority as an agent for the State of New South Wales, provides for the regulation of power station discharges for irrigation use in the Murrumbidgee Valley. The Authority has constructed a power station at the foot of the dam to generate power from releases of water for irrigation purposes.

Snowy–Murray Development. The principal features of the Snowy–Murray Development are the diversion of the main stream of the Snowy River by tunnels, shafts, and pipelines westwards through the Great Dividing Range into the Swampy Plain River in the catchment of the Upper Murray, and the development of power on the western slopes of the Alps. The main works of the development are as follows:

(*a*) A tunnel from the Snowy River near Island Bend through the Great Dividing Range to Geehi Reservoir on the Geehi River, and two power projects between Geehi Reservoir and the Swampy Plain River near Khancoban. The power stations associated with these two power projects, Murray 1 and Murray 2, have a combined capacity of 1,500 MW.

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* *See also* Chapter 15 Water Resources, Sewerage and Drainage of this issue and the special detailed article in Year Book No. 42, pp. 1103–30.

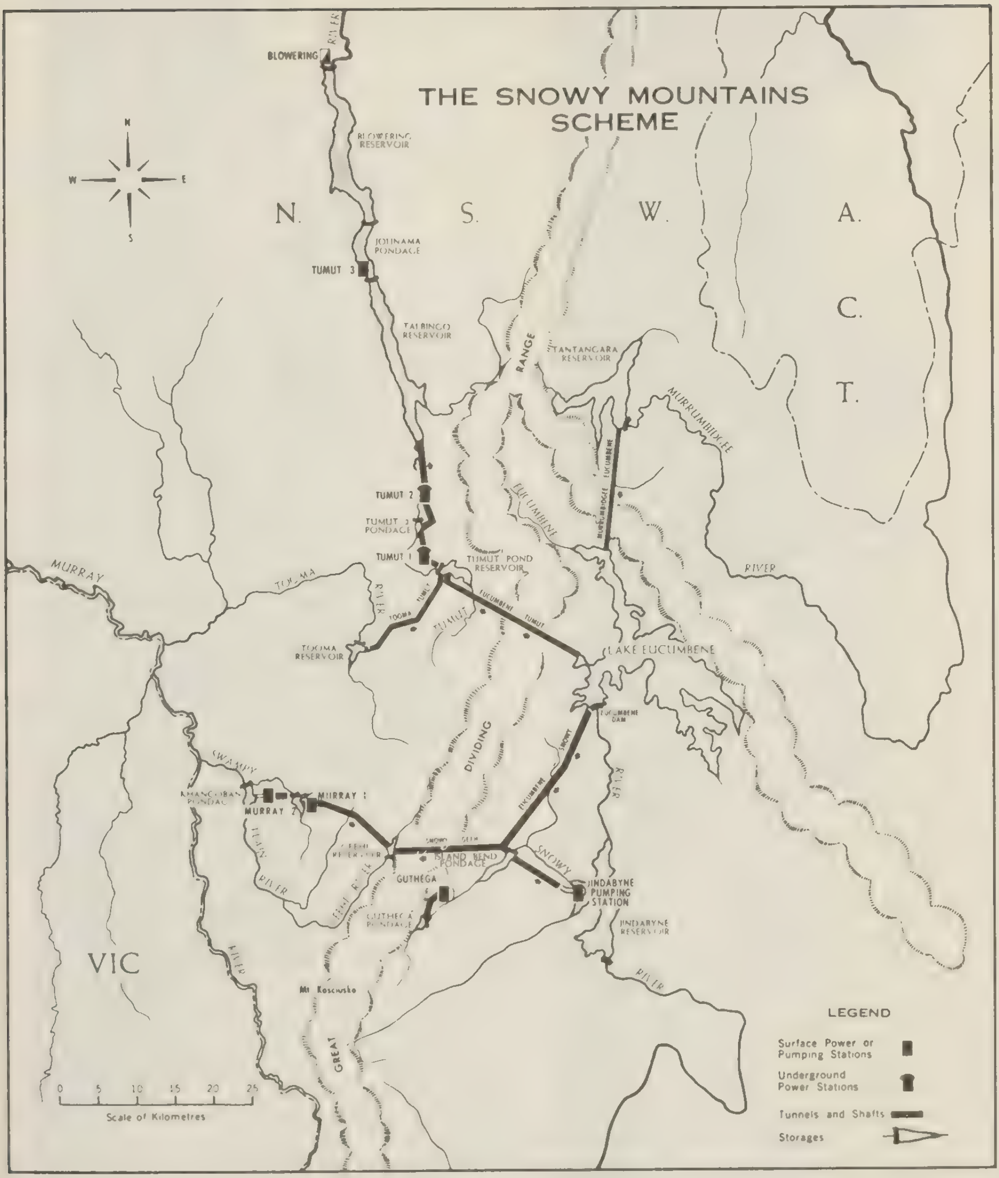
THE SNOWY MOUNTAINS SCHEME
N
S
W
E
N. S. W.
A. C. T.
VIC
BLOWERING
RIVER
BLOWERING RESERVOIR
JOUNAMA PONDAGE
TUMUT 3
TALBINGO RESERVOIR
TANTANGARA RESERVOIR
RANGE
MURRUMBIDGEE
EUCUMBENE
MURRUMBIDGEE EUCUMBENE
TUMUT 2
TUMUT 3 PONDAGE
TUMUT 1
TUMUT POND RESERVOIR
MURRAY
TOOMA
RIVER
TOOMA TUMUT
TUMUT
EUCUMBENE TUMUT
TOOMA RESERVOIR
LAKE EUCUMBENE
EUCUMBENE DAM
DIVIDING
SNOWY EUCUMBENE
SWAMPY
KHANCOBAN PONDAGE
MURRAY 1
MURRAY 2
GEEHI RESERVOIR
SNOWY GEEHI
ISLAND BEND PONDAGE
SNOWY
JINDABYNE PUMPING STATION
JINDABYNE RESERVOIR
GUTHEGA
GUTHEGA PONDAGE
GEEHI RIVER
RIVER
Mt Kosciusko
GREAT
0 5 10 15 20 25
Scale of Kilometres
LEGEND
Surface Power or Pumping Stations
Underground Power Stations
Tunnels and Shafts
Storages

PLATE 38

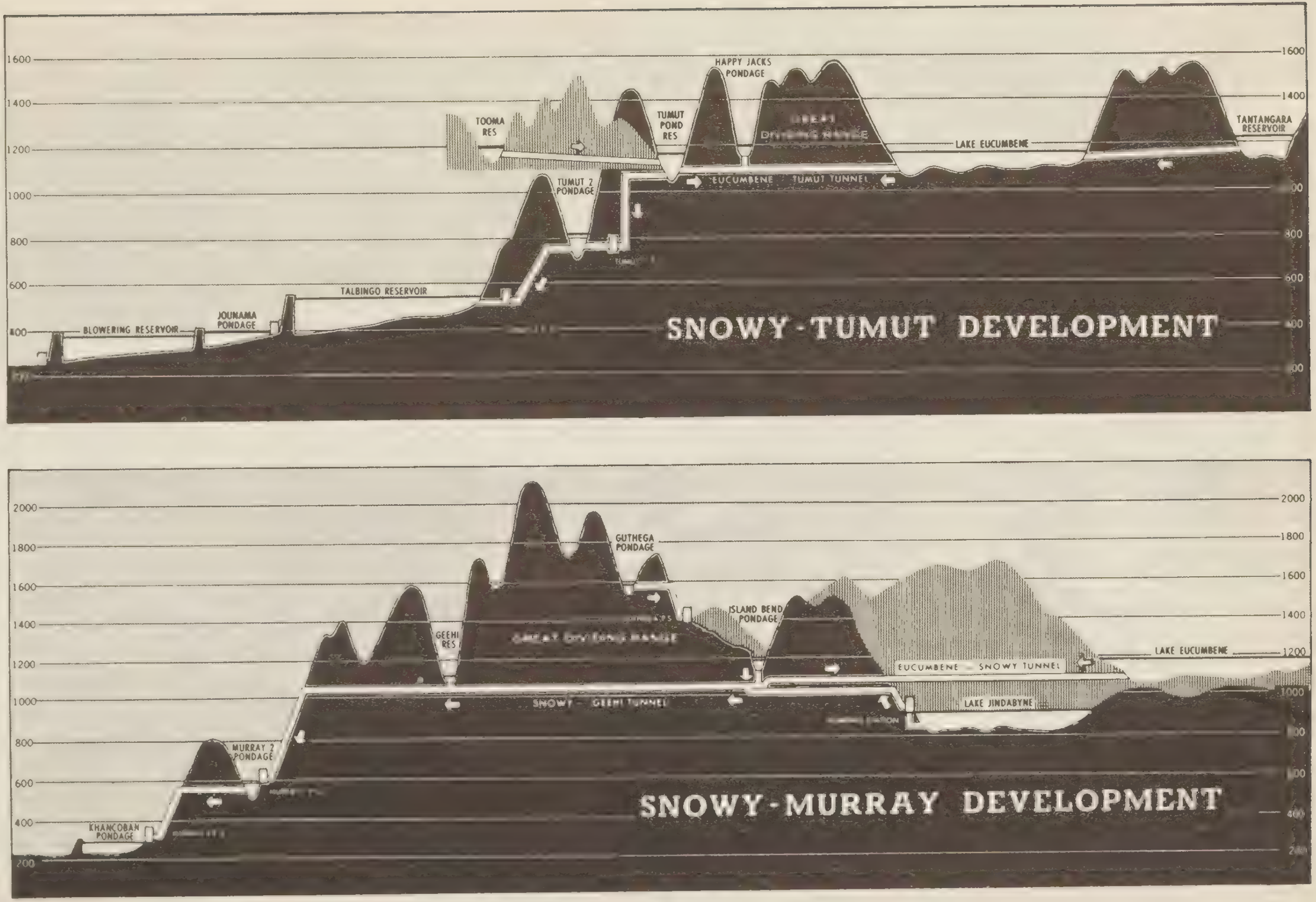
1600
1400
1200
1000
800
600
400
TOOMA RES
TUMUT POND RES
HAPPY JACKS PONDAGE
GREAT DIVIDING RANGE
LAKE EUCUMBENE
TANTANGARA RESERVOIR
TUMUT 2 PONDAGE
EUCUMBENE — TUMUT TUNNEL
TALBINGO RESERVOIR
JOUNAMA PONDAGE
BLOWERING RESERVOIR
SNOWY-TUMUT DEVELOPMENT
2000
1800
1600
1400
1200
1000
800
600
400
200
GUTHEGA PONDAGE
GEEHI RES
GREAT DIVIDING RANGE
ISLAND BEND PONDAGE
LAKE EUCUMBENE
EUCUMBENE — SNOWY TUNNEL
SNOWY — GEEHI TUNNEL
LAKE JINDABYNE
MURRAY 2 PONDAGE
KHANCOBAN PONDAGE
SNOWY-MURRAY DEVELOPMENT

PLATE 39

(*b*) A tunnel from a dam on the Snowy River near Island Bend to Eucumbene Dam to carry Snowy water to Lake Eucumbene for storage at times of high river flows. When river flows are lower than average, this stored water is returned towards Island Bend and thence through the Snowy-Geehi Tunnel to Geehi Reservoir and Murray 1 and Murray 2 Power Stations.

(*c*) A dam on the Snowy River near Jindabyne to store the residual flow of the Snowy and Eucumbene Rivers downstream from Island Bend and Eucumbene Dams, including the flows of major tributaries, the Crackenback and Mowamba Rivers; and a pumping plant, pipeline and tunnel to lift this water from Jindabyne Reservoir to the Snowy–Geehi Tunnel near Island Bend, where it joins the flow to the Geehi Reservoir for use through Murray 1 and Murray 2 Power Stations.

The power output of this section of the Scheme is increased by the Guthega Project, a subsidiary hydro-electric project on the Upper Snowy River above Island Bend with a generating capacity of 60 MW.

Utilisation of power from scheme

The future electric power plants on the mainland of Australia will be predominantly thermal or thermo-nuclear installations, and in an electrical system in which the greater part of the energy is generated in thermal plants it is usually found that the hydro installations operate to the best advantage on peak load. However, the existing New South Wales and Victorian systems include a proportion of relatively old and less efficient installations which, for reasons of fuel economy, are also best used for the production of peak load power. Therefore, in order to utilise the potential of the Snowy Mountains Scheme most effectively, the order of development was arranged so that the early stations operated, initially, somewhat below the peak of the system load, with a progressive change to predominantly peak load operation as construction proceeded and as the load increased in magnitude.

The Snowy Mountains Scheme is situated about midway between the principal load centres of Sydney and Melbourne and is connected to those cities by 330kV transmission lines. It is, consequently, in a position to take advantage of the diversity in the power requirements of these two load systems, a most important factor in so far as it affects the economy of operation of the supply systems of the two States. The average energy generated by the Snowy Mountains Hydro-electric Scheme is 5,070 GWh a year. The Commonwealth Government reserves 670 GWh for supply to the A.C.T.; Victoria receives one-third of the surplus and N.S.W. is entitled to the other two-thirds. For convenience, the Commonwealth Government's requirements are drawn from the New South Wales transmission network by an exchange arrangement between the Commonwealth Government and the Electricity Commission of New South Wales. Electricity over and above that required by the Commonwealth Government is divided between the States of New South Wales and Victoria in the ratio 2:1.

Progress of the scheme

The Scheme's first power station, Guthega, of 60 MW capacity came into operation in February 1955. It was followed by Tumut 1, an underground power station with a capacity of 320 MW, in 1959, and by the 280 MW Tumut 2 underground Power Station in 1962. Eucumbene Dam, which provides the major regulating storage for the Scheme, was completed in May 1958. Tumut Pond Dam, completed in September 1958, provides the balancing storage for the power stations of the Upper Tumut Works. The first trans-mountain diversion of water from Lake Eucumbene to the Tumut River at Tumut Pond was made possible when the 23 kilometre Eucumbene-Tumut Tunnel was completed in June 1959. The 17 kilometre Murrumbidgee-Eucumbene Tunnel and the 14 kilometre Tooma Tumut Tunnel came into operation early in 1961. Following the completion of the Upper Tumut Works, construction activity was concentrated on the Snowy Murray Development. The first unit of this development, the Eucumbene Snowy project which comprises Island Bend Dam and the 24 kilometre Eucumbene Snowy Tunnel, commenced diverting Snowy River water to storage in Lake Eucumbene in August 1965. Completion of a 14 kilometre trans-mountain Snowy-Geehi Tunnel, the 12 kilometre Murray 1 Pressure Tunnel, the first of the 1.6 kilometre long Pressure Pipelines, and the first two units of the 950 MW Murray 1 Power Station in April 1966 allowed the first diversion of the water from the Snowy River to the Murray River in the west. All of the ten turbo-generators were brought into commercial operation with the opening of the Murray 1 Project in July 1967.

Khancoban Dam, designed to regulate power station releases before their discharge into the Murray River, was completed in February 1966. The Murray 2 Project, in the base of the open cut excavated in the bank of Khancoban Reservoir downstream of Murray 1 Project, was completed in 1969. The four units of Murray 2 Power Station totalling 550 MW came into commercial operation in October 1969. Construction is also complete on the Jindabyne Project. The earth and rockfill dam was completed in September 1967, and the pumping station and Jindabyne-Island Bend Tunnel came into service in February 1969.

Blowering Dam on the Tumut River came into service in May 1968, and the 80 MW Blowering Power Station began commercial operation in August 1971.

The total installed capacity of the Scheme has now reached 3,740 MW.

For the Tumut 3 Project the construction of Jounama Dam was completed in 1968 so that the storage of water in Blowering Dam could commence. Talbingo Dam was completed in October 1970 and Tumut 3 Power Station was officially opened in October 1972 with two generators in operation. The succeeding four generators were brought into service to achieve full operation in 1974.

STATES AND TERRITORIES

New South Wales

In Year Book No. 39 an account was given in some detail of the origin and development of electricity generation and distribution in New South Wales. At present the following five Acts govern electricity supply in New South Wales:

The *Local Government Act, 1919*, which lays down the various rights and reponsibilities of local government bodies in the establishment and operation of electricity trading undertakings;

The *Gas and Electricity Act, 1935*, which established the Sydney County Council and which is responsible for the distribution of electricity in a large part of the Sydney metropolitan area, and which also amended the Local Government Act in certain respects;

The *Electricity Development Act, 1945*, which established the Electricity Authority of New South Wales as the body responsible for the promotion, regulation and co-ordination of electricity supply throughout the State including matters relating to electrical safety;

The *Electricity Commission Act, 1950*, which constituted the Electricity Commission of New South Wales as the major generating and bulk transmission authority; and

The *Energy Authority Act, 1976*, which constituted the Energy Authority of New South Wales which took over certain emergency powers previously exercisable by the Electricity Commission.

Electricity Commission of New South Wales and electricity supply authorities

The main function of the Commission is the generation and transmission of electricity, which it sells in bulk to distributing authorities (mainly local government bodies) throughout a large part of the State, to the Government railways and to certain large industrial consumers. As the major generating authority, it is also responsible for the development of new power sources except in the Snowy Mountains region.

The retail sale of electricity to the public is, in general, carried out by separate electricity supply authorities. At 30 June 1975 there were 41 retail supply authorities throughout the State, comprising 34 electricity county councils (consisting of groups of shire and/or municipal councils), 2 city councils, 1 municipal council, 2 shire councils, and 2 private franchise holders. In addition to the Electricity Commission, 2 coal companies supply electricity in bulk to retail supplying authorities. Most of the small power stations which operated in many country centres have closed down as the main transmission network has been extended.

Most electricity distribution areas have been consolidated into county districts consisting of a number of neighbouring local government areas grouped for electricity supply purposes and administered by a county council comprising representatives elected by the constituent councils. Of the 222 cities, municipalities and shires in New South Wales, 215 are included in one or other of the 34 electricity county districts.

The Electricity Authority of New South Wales

The *Electricity Development Act, 1945*, confers broad powers on the Electricity Authority to co-ordinate and develop the public electricity supply industry. The functions of the Authority include the promotion of the use of electricity, especially its use for industrial and manufacturing purposes and for primary production. Technical advice is given to retail electricity supply authorities on various aspects of their activities such as the framing of retail electricity tariffs, public lighting and the standardising of materials and equipment. The Authority acts in an advisory capacity to the Minister for Mines and Energy on electricity distribution matters generally, and may make recommendations concerning the organisation of distribution, the amendment of the law relating to the generation, transmission, distribution and supply of electricity, or on any other matters affecting the electricity distribution industry.

The Authority administers the Rural Electricity Subsidy Scheme under which the rural electrical development of the State has now been virtually completed where the extension of supply is economically feasible. Under the subsidy scheme, local electricity suppliers receive subsidies from the Authority towards the cost of new rural lines. At 30 June 1975 the Authority was committed to the payment of $40,494,143 in subsidies, of which $34,567,374 had been paid. Further details of the operation of the scheme are given in Year Book No. 56, page 956.

The *Electricity Development Act* contains provisions for the making of regulations relating to most aspects of electrical safety. Regulations now in force cover such matters as consumers' installations, licensing of electricians and electrical contractors, approval of electrical articles, safety of linesmen, and overhead line construction and maintenance. In addition, a number of aspects not governed by legislation are covered by codes of practice or recommended procedures.

The Authority also administers the Traffic Route Lighting Subsidy Scheme, which provides for financial assistance to councils towards the cost of installation of improved lighting on traffic routes traversing built-up areas with the objective of reducing the incidence of night road accidents. Since the introduction of the scheme in 1964, subsidy has been approved in respect of some 1,601 kilometres of traffic routes throughout the State.

Generation and transmission

Of the State's electrical power requirements during the year ended 30 June 1977, almost all was generated in New South Wales (86.6 per cent by coal fired power stations, 0.3 per cent by internal combustion plants, 12.1 per cent from the Snowy Mountains Hydro-Electric Authority and 1.2 per cent by other hydro-electric stations). Net interstate exports of electricity accounted for the remaining 0.2 per cent.

Major generating stations. At 30 June 1977 the major power stations of the State system of the Electricity Commission of New South Wales and their nominal capacities were as follows: Liddell (Hunter Valley), 2,000 MW; Munmorah (Tuggerah Lakes), 1,400 MW; Vales Point (Lake Macquarie), 875 MW; Wangi (Lake Macquarie), 330 MW; Tallawarra (Lake Illawarra), 320 MW; Wallerawang (near Lithgow), 740 MW; Pyrmont (Sydney), 200 MW. The total nominal capacity of the Electricity Commission's system as at 30 June 1977 was 6,389 MW. The greater part of the Commission's generating plant is concentrated within a one hundred and eighty-five kilometre radius of Sydney.

Major transmission network. The retailing of electricity to 97 per cent of the population of New South Wales is in the hands of local distributing authorities, which obtain electricity in bulk from the Commission's major State network. This network of 330 kV, 132 kV, 66 kV and some 33 kV and 22 kV transmission lines links the Commission's power stations with the load centres throughout the eastern portions of the State, extending geographically up to 650 kilometres inland.

At 30 June 1977 there were in service 3,437 circuit kilometres of 330 kV and 6,599 kilometres of 132 kV transmission lines (including 206 kilometres operating for the time being at 66 kV). There were also in service 4,543 kilometres of transmission line of 66 kV and lower voltages, and 449 kilometres of underground cable. The installed transformer capacity at the Commission's 162 sub-stations was 23,546 MVA.

Separate systems and total State installed capacity. Several local government bodies operate their own power stations and generate portion of their requirements which is supplemented by interconnection with the system of the Electricity Commission. Of these, the more important are the Northern Rivers County Council (installed capacity 28.75 MW) and the North-West County Council (15 MW). In addition, a private company operates small stations supplying the towns of Ivanhoe and Wilcannia. The aggregate effective capacity for the whole of New South Wales systems and isolated plants was approximately 6,493 MW at 30 June 1975, while the number of ultimate consumers at this date was 1,789,337.

Future development

The major thermal stations at Liddell, Munmorah and Vales Point and those at Wangi, Tallawarra and Wallerawang are the main base load supply sources for the State.

The first 500 MW generating unit of the Liddell Power Station in the Hunter Valley was commissioned in 1971, followed by the second in 1972 and the third and fourth in 1973, making a total capacity of 2,000 MW. A 500 MW unit was brought into service at Wallerawang in 1976.

Future projects include the installation of two 660 MW units at Vales Point to be in operation in 1978. A further 500 MW unit is to be installed at Wallerawang in 1981. Two 660 MW units are scheduled to be installed at a new power site at Eraring in the early 1980's, to be followed by a further two units at the same site.

The development of the 330 kV main system is continuing. Work in progress includes the construction of major 330 kV transmission lines from Wallerawang to Sydney South. A new 330 kV substation has been commissioned at Sydney East and a new 330 kV substation at Beaconsfield West is being established. Other work is in progress and being planned throughout the State to augment the transmission system.

Hydro-electricity

The greater part of the hydro-electric potential of New South Wales is concentrated in the Snowy Mountains area (*see* Snowy Mountains Hydro-electric Scheme, page 444). Apart from this area, major hydro-electric stations are in operation at the Warragamba Dam (50 MW) and Hume Dam (50 MW). In addition, there are six smaller hydro-electric installations in operation in various parts of the State. A pumped-storage hydro-electric system to produce 240 MW is being installed as part of the Shoalhaven Scheme in conjunction with the Metropolitan Water Sewerage and Drainage Board.

Victoria

A detailed description is given in Year Book No. 39 of the development of the generation and supply of electricity in the cities of Melbourne, Geelong, Ballarat and Bendigo to the time of the creation of the State Electricity Commission in 1921 and the early development of the Commission's undertakings.

State Electricity Commission of Victoria

Established under earlier legislation and currently operating under the provisions of the *State Electricity Commission Act* 1958, No. 6377 as a semi-government authority, the Commission is administered by a full-time Chairman and three part-time Commissioners. The Minister for Minerals and Energy is responsible under the *Minerals and Energy Act* 1976 for the operations of the Commission.

The principal function of the Commission is to generate or purchase electricity for supply throughout Victoria. For this purpose it is vested with the authority to own, erect and operate power stations and other electrical plant and installations; and to supply electricity to individual consumers or in bulk to any public institution or corporations and municipalities which have a franchise to sell direct to customers. The Commission may own, develop and operate brown coal open cuts, and briquetting plant and develop the State's hydro-electric resources. The Commission is required to meet from its own revenue, which it controls, all expenditure involved in operating its power and fuel undertakings and to provide for statutory transfers to the Consolidated Revenue fund of the State.

The Commission is the controlling authority for all electrical undertakings in Victoria. It administers the *Electric Light and Power Act* 1958 and is responsible for the registration of electrical contractors, the licensing of electrical mechanics, the control of methods and materials used in installations and the testing and approval of electrical equipment and appliances.

Since it began operating in 1921 the Commission has expanded and co-ordinated the generation, purchase and supply of electricity on a State-wide basis to the stage where its system generates almost all the electricity produced in Victoria (which has an area of 228,000 sq km) and the transmission network covers practically the entire population of the State. As at 30 June 1976, the Commission had total assets of $1,436 million, employed 18,572 persons, had a total income of $398.2 million and, during the preceding twelve months, had increased sales of electricity by 4.8 per cent.

Victoria's electricity system is based on the utilisation of the extensive brown coal deposits in the La Trobe Valley in Central Gippsland, about 140 to 180 km east of Melbourne. These deposits total about 108,000 megatonnes, of which about 12,000 megatonnes are commercially recoverable at present day costs.

In 1975–76 the output of brown coal from the Commission's three open cuts at Yallourn, Yallourn North and Morwell totalled 28.1 megatonnes of which 25.3 megatonnes were used in the Commission's power stations. A further 2.5 megatonnes were used to produce 1.0 megatonne of briquettes and .24 megatonne was sold to the public. Sales of briquettes to the public totalled 782,000 tonnes, producing an income of $11.1 million. Apart from the brown coal, 164 kilotonnes of briquettes and 25.0 kilotonnes of fuel oil were used as fuel in power stations.

Electricity generation, transmission and supply

In 1975–76 the Commission generated in its thermal and hydro-electric power stations, or purchased, 18,900 GWh. The total installed generating plant capacity at 30 June 1976 was 4,745 MW, inclusive of the capacity both within the State and available to Victoria from New South Wales.

The power stations are interconnected and feed electricity into a common pool for general supply. The major generating plant in the interconnected system is the 1,600 MW Hazelwood base load, brown-coal-fuelled power station near Morwell in the La Trobe Valley, which alone generates over 50 per cent of Victoria's electricity. Other brown coal power stations in the interconnected system comprise the established base load stations at Morwell and Yallourn and the partially completed Yallourn 'W' station. Peak load steam stations are located in Melbourne (Newport, Richmond and

Spencer Street). Hydro-electric stations are located at Kiewa, at Eildon, on the Rubicon and Royston Rivers near Eildon and at Cairn Curran. All generators for public supply within Victoria are owned by the Commission except Spencer Street Power Station, which remains the property of the Melbourne City Council although operated as a unit of the interconnected system.

Generation in thermal stations is supplemented by supply from the Commission's hydro stations in the mountains in the north east of the State and by entitlements from the Snowy Mountains Hydro-electric Scheme in south-eastern New South Wales (one third of output after provision for the Commonwealth Government's needs) and the Hume Power Station on the Murray River boundary with New South Wales (half of output). The Snowy Mountains Scheme is linked to the Victorian system by a 330 kV transmission line which allows for a two-way interchange with New South Wales.

At 30 June 1976 the electrical transmission and distribution system in the State supply network comprised 105,027 km of overhead lines and 2,928 km of underground lines. There are 4 auto-transformation stations, 26 terminal substations, 173 zone substations and 74,340 distribution substations. Transmission is mainly by 500, 330, 220 and 66 kV lines which supply the principal distribution centres and provide interconnection between the power stations. The total length of the 500, 330 and 220 kV lines is 3,691 km.

The Commission sells electricity retail in all Victorian supply areas except for eleven Melbourne metropolitan municipalities. These municipalities purchase electricity in bulk from the Commission and retail it to approximately 270,000 customers within the municipalities concerned under franchises granted by the Victorian Government before the Commission was established in 1921. Bulk supply is also provided to several municipalities in New South Wales and to a number of towns and areas bordering the Murray River.

Complete electrification of the State has virtually been achieved and only a few remote areas do not receive supply. At 30 June 1976 the Commission had 1,187,200 retail customers excluding bulk sales, and the income derived was $309.3 million. There were 1,007,600 domestic, 83,300 industrial and 96,000 commercial consumers. In country areas electricity was supplied to about 75,000 farms. Sales of electricity during the period, including bulk supplies, totalled 14,907 kWh and produced total income of $382 million.

Retail supply is administered through the Melbourne metropolitan branch and nine extra-metropolitan branches at Geelong, Ballarat, Bendigo, Dandenong, Traralgon, Mildura, Colac and Horsham. District supply offices are located in Melbourne and all other major cities and towns in the State.

Current and future development

The only power station currently under construction is Yallourn W in the La Trobe Valley. It is designed as a 4 unit, base load station of 1,450 MW capacity fuelled by brown coal. The first two 350 MW units are now in commission. The second two units, each of 375 MW capacity, are scheduled to begin operating in 1980 and 1981. The total cost of the station is estimated to exceed $400 million. The Commission is erecting a 500 MW natural gas fired power station at Newport to come into operation at the end of the decade. A hydro-electric station with one 150 MW unit capacity is being built at Dartmouth in north-eastern Victoria, in conjunction with the dam currently under construction, to come into operation about 1979 80. The largest future program is the proposal approved by the Government to develop a major base load generating complex of about 4,000 MW capacity at Loy Yang in the eastern part of the La Trobe Valley, planned to begin operating in the early 1980's. A new coal field will be opened for the project, which is expected to cost more than $120 million at present day valuation.

Queensland

In Year Book No. 39 an account is given of the growth of electricity generation in Queensland, with particular reference to south-eastern Queensland, and of the events leading up to the establishment in 1937 of the State Electricity Commission of Queensland. In Year Book No. 53 an account is given of the post-war development and organisation of the electricity supply in Queensland.

Legislation

Prior to the reorganisation of the electricity supply industry in Queensland on 1 July 1977, there were six regulatory Acts (*See* Year Book No. 61, p. 98). These Acts were repealed by the *Electricity Act* 1976 which consolidated and amended the law relating to the organisation and regulation of the generation, transmission, distribution, supply and use of electricity in Queensland and to matters of safety associated with these functions.

State Electricity Commission of Queensland

Its main functions are to plan and ensure the proper development and coordination of the electricity supply industry throughout the State, to enforce safety regulations, to control electricity charges, to raise capital for development, and to administer all electricity supply legislation.

Organisation

The function of main generation in the reorganised industry is carried out by the Queensland Electricity Generating Board which controls the coastal power stations. These were previously operated by the Southern Electric Authority, the Wide Bay-Burnett Regional Electricity Board, the Capricornia Regional Electricity Board and the Northern Electric Authority.

The Queensland Electricity Generating Board supplies energy in bulk to seven distributing boards whose responsibility is the distribution of electricity to retail consumers in their respective areas. These boards are the South East Queensland Electricity Board, the South West Queensland Electricity Board, the Wide Bay-Burnett Electricity Board, the Capricornia Electricity Board, the Mackay Electricity Board, the North Queensland Electricity Board and the Far North Queensland Electricity Board.

Four of these distributing boards (the South West Queensland, Capricornia, North Queensland and Far North Queensland) also operate small internal combustion stations in their respective areas.

Electricity generation, transmission and distribution

Electricity generated in the State is based primarily on steam power stations using black coal, 90 per cent of the total production during 1976–77 being derived from this fuel. Hydro-electric stations located mainly in North Queensland provided 9 per cent, and the balance of the production was provided from internal combustion and gas turbine stations. These gas turbine stations use oil as their energy source. All of the internal combustion diesel stations use oil as fuel. The power station at Roma also uses locally-produced natural gas. Electricity generated in Queensland in power stations during 1976–77 totalled 9,269.5 GWh. A further 99.5 GWh were purchased in bulk from other producers of electricity for re-distribution to consumers.

At 30 June 1977 the total generating capacity of all Queensland power stations was 2,345 MW, comprising 1,998 MW of steam plant, 132 MW of hydro-electric plant, 52 MW of internal combustion plant and 163 MW gas turbine plant.

The southern-central electricity network is served by the following steam power stations: Tennyson 'A' (120 MW), Tennyson 'B' (120 MW), Bulimba (180 MW), Howard (37.5 MW) and Callide (120 MW). Gas turbine stations at Middle Ridge (60 MW), Swanbank 'C' (30 MW) and Rockhampton (25 MW) also serve the southern-central network. Power supply to this network has been augmented by the commissioning of two 275 MW steam sets together with a 14 MW gas turbine set at the thermal power station at Gladstone. The northern electric network is supplied by steam power stations at Collingsville (180 MW) and Townsville (37.5 MW), hydro-electric stations at Kareeya (72 MW) and Barron Gorge (60 MW) and a gas turbine station at Mackay (34 MW).

The electrical transmission and distribution systems within the State comprised approximately 100,800 circuit kilometres of electric lines at 30 June 1977. The main transmission voltages are 275 kV, 132 kV, 110 kV, 66 kV and, in certain areas, 33 kV and 22 kV. The electricity supply industry's extensive rural electrification program continued using the single wire earth return system.

At 30 June 1977 the total number of electricity consumers was 715,080, of whom 250,170 were in the Brisbane municipal area.

Future development

Construction of the power station at Gladstone in Central Queensland is well advanced. When complete, this station will consist of six 275 MW steam sets and one 14 MW gas turbine set. By August 1977 the first two steam sets and the gas turbine set were fully operational. The third and fourth 275 MW sets will be operational by the end of 1978, with the fifth and sixth sets due for completion in 1981 and 1982 respectively.

Approval has been given by the Government to proceed with the Wivenhoe Pumped Storage Hydro-Electric Project in conjunction with the construction of the Wivenhoe Dam on the Brisbane River. The power station will consist of two 250 MW pump turbine units, to be commissioned in 1983, at an estimated cost of $160 million based on mid-1977 price levels. Tenders have been called for the major plant items comprising turbines, pumps and generators, and orders should be placed by early 1978.

The construction of the 275 kV transmission link between the central and northern networks should be completed and operational by late 1977.

South Australia

A general historical survey concerning the electricity supply industry in South Australia is given in Year Book No. 39, page 1186. The survey traces the development of the industry from its formation in South Australia in 1895 until the establishment of the South Australian Electricity Commission in 1943.

Electricity Trust of South Australia

In 1946 the assets of the Adelaide Electric Supply Co. Ltd were transferred to a newly-formed public authority, the Electricity Trust of South Australia, which became responsible for unification and co-ordination of the major portion of the State's electricity supply and which took over the powers previously vested in the South Australian Electricity Commission. In addition to the powers specified in the *Adelaide Electric Supply Company's Acts*, 1897–1931, the Trust may supply electricity direct to consumers within a district or municipality with the approval of the local authority; arrange, by agreement with other organisations which generate or supply electricity, to inter-connect the mains of the Trust with those of other organisations; and give or receive supplies of electricity in bulk.

Capacity and production

Of the total installed capacity in South Australia at 30 June 1976, the Electricity Trust operated plant with a capacity of 1,237 MW, making it the most important authority supplying electricity in the State. There were approximately 511,500 ultimate consumers of electricity in the State, of whom 506,000 were supplied directly and approximately 5,500 indirectly (i.e. through bulk supply) by the Trust. Its major steam stations are Osborne (240 MW), Port Augusta Playford 'A' (90 MW) and Playford 'B' (240 MW), and Torrens Island (480 MW).

The Trust operates two smaller stations: at Mount Gambier (installed capacity of 22 MW) and Port Lincoln (9 MW). Both locations are connected to the Trust's interconnected system with 132 kV lines. In addition, the Trust operates a turbo-generator station at Dry Creek (156 MW).

The two main fuels used by the Trust are sub-bituminous coal from Leigh Creek for the Playford power stations at Port Augusta and natural gas from the Gidgealpa-Moomba field for the Torrens Island and Dry Creek stations.

Western Australia

For information on the early history of electricity supply in the metropolitan area, *see* Year Book No. 39, page 1189.

State Energy Commission of Western Australia

On 1 July 1975 the Government of Western Australia combined the State Electricity Commission and the Fuel and Power Commission to form a new organisation known as the State Energy Commission of Western Australia. The new Commission is specifically charged with the responsibility for ensuring the effective and efficient utilisation of the State's energy resources and for providing its people with economical and reliable supplies of electricity and gas.

The Commission operates coal-burning power stations at East Perth, South Fremantle, Bunbury and Muja and an oil-burning station at Kwinana. A small hydro-electric station is situated at Wellington Dam near Collie and there is a gas turbine generating plant at Geraldton. A uniform tariff electricity supply is provided from these stations through an interconnected grid system to the Metropolitan Area and the South-West and Great Southern Areas, including an area extending eastward to Koollyanobbing and northwards as far as Binnu beyond Northampton. The Commission also owns and operates diesel power stations at Esperance, Fitzroy Crossing, Halls Creek, Kununurra, Onslow, Port Hedland and Roebourne.

Small electricity supply systems too remote to be connected to the grid system or supplied from the Commission-owned diesel stations are still controlled by local government authorities and are being absorbed in a leasing arrangement whereby the local generating plant and distribution system is operated by the Commission under an arrangement known as the Country Town's Assistance Scheme. Under the scheme, the Commission undertakes to operate, maintain, replace or upgrade plant and supply equipment as necessary. At the present time there are 31 country towns supplied under the provisions of the Country Towns' Assistance Scheme.

Natural gas is reticulated in most areas of the Perth metropolitan region and in Pinjarra, simulated natural gas (SNG) is reticulated in the Bunbury area, and tempered liquified petroleum gas (TLP) is reticulated in Albany.

Some details of the Commission's activities for the year ending June 1976 (1977)* are: Number of electricity consumer accounts, 335,000 (395,000) and gas consumer accounts, 68,000 (76,000); electricity generated 3,906 (4,244) GWh; gas sold 833,389,000 (854,100,000) units; fuel used for electricity generation 1,971,000 (2,088,000) tonnes of coal, 163,400 (196,000) tonnes of fuel oil, and 39,729,000 (52,670,000) litres of diesel fuel.

Sales for the year ending 30 June 1976 (1977)*, compared with those for the preceding year, show an increase of 9.2 (7.6) per cent for electricity and 7.3 (2.4) per cent for gas.

Tasmania

A considerable part of the water catchment in Tasmania is at high level. The establishment of numerous dams has created substantial artificial storage which has enabled the State to produce energy at a lower cost than elsewhere in Australia and in most other countries. Another factor contributing to the low cost is that rainfall is distributed fairly evenly throughout the year with comparatively small yearly variations. Abundant and comparatively cheap supplies of electricity played an important role in attracting the energy industry to Tasmania. For information on hydro-electric development in Tasmania prior to the establishment of the Hydro-Electric Commission in 1930, *see* Year Book No. 39, pages 1192–3.

Hydro-Electric Commission

The Commission was created in 1930, taking over the activities of the Hydro-Electric Department and the existing small hydro-electric installations. Development initially concentrated on hydro-electric generation feeding into a State-wide power grid (King Island from 1951 and Flinders Island from 1968 are outside the grid and are supplied by diesel generators). Unusually low rainfall during 1967 severely restricted the State's generating capacity and prompted the construction of a substantial oil-fired thermal station with a capacity of 240 MW. This station, completed during 1974, remains on standby.

Output and capacity of hydro-electric system

For information on the development of the Tasmanian generating system *see* Year Book No. 61, pages 984–985.

At the end of December 1977 generator capacity stood at: hydro generation, 1,396 MW; oil-fired thermal, 240 MW; and diesel, 1.7 MW. It is expected that the installation of the second generator in the Gordon River Hydro-Electric Scheme, Stage I, will be carried out during 1978, increasing generating capacity by 144 MW.

The future development program provides for the completion of Stage I of the Gordon River Scheme and construction of a system based on the Pieman, Murchinson and Mackintosh Rivers in Western Tasmania; these works, which have already been approved, will add 851 MW to the State's power grid.

The Commission is conducting extensive surveys and investigation of other possible schemes with a view to construction after the completion of the present program. It is estimated that the potential which can be developed economically should ultimately harness 3,000 MW to the system.

Australian Territories

Australian Capital Territory

The supply authority is the A.C.T. Electricity Authority which took over the functions of the Canberra Electric Supply Branch, Department of the Interior, on 1 July 1963. Supply was first made available in Canberra during 1915 and was met from local steam plant. Connection to the New South Wales interconnected system was effected in 1929, and all requirements are now taken from this system. Locally-owned plant consists of 4 MW diesel alternators which are retained as a standby for essential supplies. The total number of ultimate consumers at 30 June 1977 was 71,737. During the year 1976–77 the bulk electricity purchased was 1,143 GWh and the system maximum demand was 316 MW.

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* Bracketed figures refer to year ended 30 June 1977.

Northern Territory

Electricity is supplied in the main population centres by the Department of the Northern Territory. The Electricity Supply Division of the Department of Construction designs, constructs, operates and maintains electricity supply facilities on the Department of the Northern Territory's behalf.

An oil-fired steam power station is operated at Darwin with 66 kV transmission. Alice Springs, Pine Creek, Katherine, Tennant Creek, Elliott, Mataranka and Tea Tree are supplied by diesel power stations.

The Stokes Hill Power Station in Darwin has an installed capacity of 94 MW with two additional 23.5 MW sets now being installed. These are due for commissioning in 1978, and will give the station an installed capacity of 141 MW. Preliminary planning for a second power station in Darwin is proceeding. A 10 MW gas turbine was commissioned in 1974 for emergency standby purposes.

A new diesel station was commissioned in Alice Springs in 1973 and, together with the old station, has an installed capacity of 24.8 MW. An order has been placed for a fourth 5.6 MW diesel alternator set. Planning for further extension is proceeding.

Katherine is supplied by an 8.5 MW diesel station. A new 4.7 MW diesel power station in Tennant Creek operates automatically with a minimum of staff. A fourth 1.56 MW diesel alternator is on order. Small diesel stations are operated at Elliott (340 kW), Pine Creek (900 kW), Mataranka (480 kW) and Tea Tree (120 kW).

There are 33 Aboriginal communities which generate their own electricity. A total of 85 generators are in operation in these communities with an installed capacity of 14.5 MW. Nabalco operates a 120 MW oil-fired steam power station and a large diesel power station at Gove.

Statistical Summary

For a summary of operations of electricity establishments in 1971–72 and 1974–75, *see* Chapter 17, Manufacturing and Internal Trade, pages 433–435.

CHAPTER 19

HOUSING AND CONSTRUCTION

This chapter gives details of: the characteristics of dwellings obtained from censuses (pages 457,458); government activities in the field of housing (pages 459–469); financial arrangements associated with the erection or purchase of homes (pages 469–472); a summary of building activities (pages 473–478); and a summary of construction (other than building) activities (page 479).

HOUSING

Census dwellings

Further information on dwellings obtained from censuses is available in the detailed tables of the publications issued for each individual census. A list of the 1971 Census publications is shown in the ABS *Catalogue of Publications* (1101.0).

At each census of the population, in addition to the questions relating to personal particulars, there have been a number of questions relating to dwellings. A 'dwelling' is defined as any habitation occupied by a household group living together as a domestic unit, whether comprising the whole or only part of a building, and includes, in addition to houses and self-contained flats, a great variety of dwellings ranging from a single-roomed shack to a multi-roomed hotel or institution. This section contains particulars of such information on dwellings as is available from the 1976 Census, together with information from earlier censuses.

Number of dwellings

The following table shows the number of occupied and unoccupied dwellings in Australia at each census from 1911 to 1976. Occupied dwellings are classified into 'private' and 'non-private' dwellings.

Private dwellings were classified into the following categories for the 1976 Census:

private house—includes separate, semi-detached, attached and terrace or row houses.

villa unit—also includes dwellings variously described as town house, cottage unit villa development, cottage flats.

self-contained flat—part of a house or other building which can be completely closed off and which has its own cooking and bathing facilities. Includes home units.

other private dwellings—comprises non-self-contained parts or rooms of houses, flats or other premises. Also includes sheds, tents, garages, caravans and houseboats occupied on a permanent or semi-permanent basis.

Non-private dwellings include hotels, motels, boarding houses and hostels, educational, religious and charitable institutions, hospitals, defence and penal establishments, caravan parks, staff barracks and quarters, etc.

An unoccupied dwelling is defined as a structure built specifically for private living purposes and which is habitable though unoccupied at the time of the Census. The total number of unoccupied dwellings shown for any area does not represent the number of vacant dwellings available for sale or renting.

DWELLINGS(*a*): AUSTRALIA, CENSUSES, 1911 TO 1976

	Occupied			
Census	*Private*	*Non-private*	*Total*	*Unoccupied*
1911	894,389	29,070	923,459	33,473
1921	1,107,010	46,275	1,153,285	51,163
1933	1,509,671	37,705	1,547,376	68,772
1947	1,873,623	34,272	1,907,895	47,041
1954	2,343,421	36,932	2,380,353	112,594
1961	2,781,945	35,325	2,817,270	194,114
1966	3,155,340	33,917	3,189,257	263,873
1971	3,670,553	24,006	3,694,559	339,057
1976*p*	4,144,718	22,178	4,166,896	429,500

(*a*) Excludes dwellings occupied solely by Aboriginals before 1966.

The following table shows the number of occupied and unoccupied dwellings in the urban and rural areas of Australia at the Census of 30 June 1976. For delimitation of 'urban centres' *see* Year Book No. 61, pages 142–3.

DWELLINGS: URBAN AND RURAL, AUSTRALIA, CENSUS 30 JUNE 1976(*p*)

	Occupied				*Unoccupied*	
			Total			
Division	*Private*	*Non-private*	*Number*	*Percentage of total*	*Number*	*Percentage of total*
Urban—						
Major	2,767,572	8,235	2,775,807	66.62	206,700	48.13
Other	857,005	7,586	864,591	20.75	109,599	25.52
Rural	519,844	6,359	526,203	12.63	113,202	26.35
Total	**4,144,421**	**22,180**	**4,166,601**	**100.0**	**429,501**	**100.0**

The total numbers of occupied and unoccupied dwellings in each State and Territory at the Censuses of 1971 and 1976 were as follows:

DWELLINGS: CENSUSES, 1971 AND 1976

	Census 30 June 1971		*Census 30 June 1976*	
State or Territory	*Occupied*	*Unoccupied*	*Occupied*	*Unoccupied*
New South Wales	1,364,542	124,522	1,500,017	152,704
Victoria	1,015,485	88,521	1,127,623	119,026
Queensland	517,245	51,077	603,586	62,059
South Australia	344,112	30,553	392,761	39,539
Western Australia	286,845	28,274	339,448	33,986
Tasmania	110,420	13,307	122,567	15,781
Northern Territory	17,792	929	23,553	2,279
Australian Capital Territory	38,118	1,874	57,046	4,127
Australia	**3,694,559**	**339,057**	**4,166,601**	**429,501**

Year Book No. 61, pages 209–213, contains tables with the following information from the Censuses of 1966 and 1971:

Occupied dwellings, number and percentage distribution, urban and rural;
Occupied dwellings by class;
Inmates by class of dwelling, numbers and percentage distribution, urban and rural;
Occupied private houses and self-contained flats by nature of occupancy;
Occupied private houses and self-contained flats by material of outer walls;
Occupied private dwellings by number of rooms and class of dwelling;
Occupied private dwellings by number of bedrooms and class of dwelling;
Number of occupied self-contained flats and number of inmates by number of flats in block;
Occupied private houses and self-contained flats by gas, electricity, and television facilities;
Occupied private dwellings by bathroom and kitchen facilities and class of dwelling;
Occupied private houses and self-contained flats by number of motor vehicles, urban and rural;
Occupied private dwellings by method of sewage disposal and class of dwelling;
Unoccupied private dwellings by reason unoccupied: numbers and percentage distribution urban and rural;
Unoccupied private dwellings by reason unoccupied and class of dwelling.

Similar information from the 1976 Census will be available from the ABS from mid-1978.

Government activities in the housing field

Former Arrangements between Commonwealth and State Governments

Over the period between 1945 and 1971, public housing was provided under the terms of a series of Housing Agreements entered into between the Commonwealth and the State Governments. For more detailed explanations, *see* Year Book No. 61, page 228.

With effect from 1 July 1971, a new arrangement was introduced under which the State Governments allocated loan funds for public housing purposes and were financially assisted by the Commonwealth making payments of non-repayable interest-free grants under the *States Grants (Housing) Act* 1971. Originally, that Act was to operate in respect of five financial years, but in 1973 it was amended to apply to operations in 1971–72 and 1972–73 only. For further information regarding the *States Grants (Housing) Act* 1971 *see* Year Book No. 59, page 210.

1973–1974 Housing Agreement

A further Housing Agreement was entered into between the Commonwealth and all States in 1973 in relation to Welfare housing. It was amended in some minor respects in 1974.

In each of the five financial years commencing 1 July 1973, advances are being made by the Commonwealth for the financing of State housing authority programs and the making of Home Builders' Account loans through terminating building or co-operative housing societies (or an approved lending authority in some States).

Advances are repayable over 53 years with interest at 4 per cent per annum on housing authority advances and 4½ per cent per annum on Home Builders' Account advances.

Needs tests based on percentages of average weekly earnings figures published quarterly by the Australian Statistician are laid down in the Agreement to determine eligibility for housing authority dwellings and home loans.

The sale of housing authority dwellings is limited to 30 per cent of the family dwellings completed in the five year period commencing 1 January 1974.

Housing Agreement (Servicemen)

Prior to 30 June 1971, housing for servicemen was provided under the terms of the 1956–1966 Housing Agreement which, in the main, was concerned with public housing and which expired on that date. With effect from 1 July 1971, a separate agreement was concluded between the Commonwealth and State Governments to provide for the construction of dwellings for allotment to servicemen and for improvements to existing accommodation occupied by them. Programmes are negotiated annually and the full capital cost is made available by the Commonwealth in repayable, interest-bearing advances to the States.

Operations under the 1973–1974 Housing Agreement and the Housing Agreement (Servicemen)

The following tables show the results of operations under the 1973–1974 Housing Agreement and the Housing Agreement (Servicemen) during 1975–76 and 1976–77. Corresponding figures for 1974–75 appear in Year Book No. 61, page 229.

1973-74 HOUSING AGREEMENT: SUMMARY 1975-76

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
HOUSING FUNDS ($'000)							
Allocation of State loan moneys for housing	123,411	98,159	31,010	56,360	33,440	22,220	364,600
State housing authorities(*a*)	98,729	68,711	22,172	33,560	26,752	17,700	267,624
Home builders' account(*a*)	24,682	29,448	8,838	22,800	6,688	4,520	96,976
Amounts drawn by institutions	45,000	46,347	12,409	26,730	9,895	5,764	146,145
Housing Agreement (Servicemen) advances	18,005	6,082	7,500	1,725	698	160	34,170
NUMBER OF DWELLINGS							
State housing program—							
Commenced	1,834	2,364	637	1,021	798	740	7,394
Completed	4,574	2,520	1,069	1,321	765	817	11,066
Under construction at 30 June 1976	2,249	2,320	113	1,209	468	388	6,747
Home builders' account—							
Purchased—							
New	418	328	253	1,873	35	24	2,931
Other	1,059	1,048	181	275	..	302	2,865
New construction—							
Approved	1,843	2,097	668	2,869	531	511	8,519
Commenced	523	879	238	765	499	168	3,072
Completed	735	1,205	288	803	597	204	3,832
Service housing—							
Agreed program	100	57	208	67	15	..	447
Completed(*b*)	587	132	196	4	..	4	923
Sold under—							
1973–74 Housing agreement	155	1,645	13	269	391	190	2,663
Earlier agreements	1,298	1,236	578	4	767	40	3,923

(*a*) Between 20 and 30 per cent of total advances to a State in a financial year must be allocated to Home Builders' Accounts, the balance being allocated to State Housing Authorities. (*b*) Also included in State housing program above and may include completions of houses for servicemen programmed in previous years.

1973-74 HOUSING AGREEMENT: SUMMARY 1976-77

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
HOUSING FUNDS ($'000)							
Allocation of State loan moneys for housing	123,411	98,159	37,410	56,360	35,440	24,220	375,000
State housing authorities(*a*)	86,388	68,711	28,572	33,560	23,036	19,376	259,643
Home builders' account(*a*)	37,023	29,448	8,838	22,800	12,404	4,844	115,357
Amounts drawn by institutions	58,644	49,167	11,983	27,264	8,020	6,578	161,656
Housing Agreement (Servicemen) advances	15,280	4,191	12,300	2,107	1,230	6	35,114
NUMBER OF DWELLINGS							
State housing program—							
Commenced	3,030	2,455	1,085	1,167	885	803	9,425
Completed	2,769	2,318	696	1,176	821	752	8,532
Under construction at 30 June 1977	2,510	2,457	502	1,200	532	439	7,640
Home builders' account—							
Purchased—							
New	690	297	186	2,105	46	18	3,342
Other	1,378	1,065	204	219	29	240	3,135
New construction—							
Approved	2,865	2,177	671	2,825	372	423	9,333
Commenced	611	888	279	554	300	178	2,810
Completed	596	945	289	643	351	174	2,998
Service housing—							
Agreed program	194	..	150	23	25	..	392
Completed(*b*)	154	65	255	68	40	..	582
Sold under—							
1973–74 Housing agreement	28	1,622	161	251	85	27	2,174
Earlier agreements	974	1,579	620	..	694	6	3,873

(*a*) *See* footnote (*a*) above. (*b*) *See* footnote (*b*) above.

Dwellings for Aged Pensioners Scheme

Year Book No. 61, page 229 gives information on the *States Grants (Dwellings for Aged Pensioners) Act* 1969 and the *States Grants (Dwellings for Pensioners) Act* 1974. An amendment of the latter Act in 1977 extended the Scheme for a further one year and allocated $10 million for payment to the States in the financial year ending 30 June 1978.

Building Schemes approved under the Acts in 1975–76 and 1976–77 are shown in the following table.

DWELLINGS FOR PENSIONERS SCHEME: APPROVALS

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
Number of building schemes approved—							
1975–76	5	12	12	8	5	2	44
1976–77	11	..	6	4	4	1	26
Number of units in approved schemes—							
1975–76	97	81	127	103	40	47	495
1976–77	138	..	55	57	66	9	325
Estimated cost of approved schemes—							
1975–76 . . $'000	1,731	1,602	2,037	1,531	580	682	8,164
1976–77 . . $'000	2,084	..	944	907	895	158	4,986

Defence service homes

The *Defence Service Homes Act* 1918, formerly the *War Service Homes Act* 1918, makes provision for assistance to be granted to persons who satisfy the eligibility conditions set out in the Act to enable them to acquire on concessional terms a soundly constructed home that they would occupy as a residence.

Persons eligible for assistance under the Act include members of the Australian forces and nursing services enlisted or appointed for or employed on active service outside Australia or on a ship of war during the 1914–18 and 1939 45 Wars; persons who served in the warlike operations in Korea or Malaya or who have served on 'special service' as defined in the *Repatriation (Special Overseas Service) Act* 1962; and members of the Forces who serve on continuous full-time service and national servicemen whose periods of service ended not earlier than 7 December 1972 and who meet certain prescribed conditions. The categories of eligible persons also include the widows and, in some circumstances, the widowed mothers of eligible persons, and persons domiciled in Australia and employed in certain sea-going service during the 1914–18 and 1939–45 Wars.

The maximum amount of loan or advance which may be granted under the *Defence Service Homes Act* 1918 is $15,000. The maximum period of repayment is 45 years or, in the case of the widow or widowed mother of an Australian ex-serviceman, 50 years; but normally the repayment period is restricted to not more than 32 years.

The Defence Service Homes Corporation is, subject to the directions of the Minister for Veterans' Affairs, responsible for the administration of the *Defence Service Homes Act.*

Operations under the Defence Service Homes Act

The following tables give details of the operations under the Defence Service Homes Act in the year 1976–77 and from the inception of the scheme on 6 March 1919 to 30 June 1977. The earliest single year for which details are given in the tables is 1972–73; for earlier years *see* previous issues of the Year Book. The figures shown include operations in Papua New Guinea and on Norfolk Island.

DEFENCE SERVICE HOMES ACT: OPERATIONS, 1976-77 AND TO 30 JUNE 1977

		1976–77			
		Eligibility established from following service—			
		1914–18 War	*1939–45 War Korea, etc.(a)*	*Regulars and National Servicemen serving on or after 7 December 1972*	*Total*
Applications received	No.	93	7,252	2,714	10,059
Applications approved	,,	52	4,388	1,366	5,806
Homes purchased	,,	46	2,290	524	2,860
Homes built, or assistance given to build them	,,	17	868	472	1,357
Mortgages discharged	,,	9	1,265	299	1,573
Total homes provided	,,	*72*	*4,423*	*1,295*	*5,790*
Transfers and resales	,,	1	167	53	221
Total capital expenditure	$'000	n.a.	n.a.	n.a.	90,057
Total receipts	,,	n.a.	n.a.	n.a.	(b)124,424

		From inception to 30 June 1977			
		Eligibility established from following service—			
		1914–18 War	*1939–45 War Korea, etc.(a)*	*Regulars and National Servicemen serving on or after 7 December 1972*	*Total*
Applications received	No.	119,915	491,951	12,372	624,238
Applications approved	,,	59,124	300,503	6,285	365,912
Homes purchased	,,	20,882	162,757	3,766	187,405
Homes built, or assistance given to build them	,,	24,227	76,304	1,023	101,554
Mortgages discharged	,,	4,389	43,227	943	48,559
Total homes provided	,,	*49,498*	*282,288*	*5,732*	*337,518*
Transfer and resales	,,	9,694	17,247	176	27,117
Total capital expenditure	$'000	n.a.	n.a.	n.a.	2,010,602
Total receipts	,,	n.a.	n.a.	n.a.	(c)1,606,618

(a) Korea, Singapore, Malaysia or Vietnam (Southern Zone) and Vietnamese waters. (b) All receipts for year less repayments under Widows' Relief Scheme. (c) Includes interest paid on expenditure on account of Widows' Relief Scheme.

DEFENCE SERVICE HOMES ACT: OPERATIONS

	Number of						
		Homes provided					
Year	*Applications received*	*Homes purchased (a)*	*Homes built(b)*	*Mortgages discharged*	*Total*	*Total capital expenditure*	*Total receipts*
						$'000	$'000
1972–73 . .	11,687	4,990	919	1,467	7,376	74,326	97,622
1973–74 . .	15,494	6,223	715	1,356	8,294	102,000	101,467
1974–75 . .	14,582	5,840	1,244	1,780	8,864	130,000	91,640
1975–76 . .	11,646	5,009	1,472	1,797	8,278	122,469	110,720
1976–77 . .	10,059	2,860	1,357	1,573	5,790	90,057	124,424

(*a*) Homes purchased with assistance under the Defence Service Homes Act. (*b*) Or assistance given to build a home.

DEFENCE SERVICE HOMES ACT: ADVANCES FOR HOUSING AND NUMBER OF HOMES PROVIDED

Period or date	*N.S.W. (a)*	*Vic.*	*Qld (b)*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Total*
TOTAL CAPITAL ADVANCED DURING YEAR ($'000)									
1972–73 .	23,858	21,497	13,443	6,137	5,986	2,050	71	1,284	74,326
1973–74 .	30,171	27,149	17,400	10,418	9,500	3,200	162	4,000	102,000
1974–75 .	37,925	32,250	22,785	11,867	16,400	3,220	133	5,420	130,000
1975–76 .	40,954	31,971	20,254	10,490	16,005	2,795	(*c*)	5,725	122,469
1976–77 .	31,109	21,607	14,635	9,120	11,798	1,788	(*c*)	4,600	90,057
NUMBER OF SECURITIES IN FORCE									
At end of June—									
1973 .	63,590	54,933	25,497	16,618	17,597	4,341	68	1,399	184,043
1974 .	62,699	54,379	25,527	16,603	17,576	4,397	73	1,671	182,925
1975 .	63,035	54,363	26,181	16,879	18,095	4,484	67	2,022	185,126
1976 .	62,535	53,109	26,367	16,736	18,072	4,483	33	2,355	183,690
1977 .	61,367	52,316	26,197	16,504	17,855	4,380	38	2,575	181,232
VALUE OF ADVANCES OUTSTANDING ($'000)									
At end of June—									
1973 .	354,216	280,040	128,229	80,762	86,843	22,263	(*c*)	(*d*)	952,353
1974 .	363,071	288,556	135,961	84,624	90,336	23,997	(*c*)	(*d*)	986,545
1975 .	382,562	302,077	150,560	91,341	101,351	25,901	(*c*)	(*d*)	1,053,792
1976 .	402,045	313,014	162,454	95,314	109,329	27,117	(*c*)	(*d*)	1,109,273
1977 .	408,911	314,001	168,289	97,822	113,757	27,113	(*c*)	(*d*)	1,129,893
NUMBER OF HOMES PROVIDED									
1972–73 .	2,302	2,173	1,298	648	597	218	9	131	7,376
1973–74 .	2,449	2,245	1,434	757	783	280	14	332	8,294
1974–75 .	2,402	2,172	1,544	836	1,245	251	10	404	8,864
1975–76 .	2,437	2,098	1,379	704	1,059	204	7	390	8,278
1976–77 .	1,724	1,359	967	555	740	122	9	314	5,790

(*a*) Includes Norfolk Island. (*b*) Includes Papua New Guinea. (*c*) Included in South Australia. (*d*) Included in New South Wales.

In addition to the homes provided under the *Defence Service Homes Act* and shown above, 3,597 homes, which had been provided originally under the Housing Agreements with the States, have been taken over in accordance with those Agreements.

Home Savings Grant Scheme

The administration of the Home Savings Grant Scheme is a function of the Department of Environment, Housing and Community Development. The purpose of the scheme is to encourage people to save regularly towards the ownership of their first home and to assist them financially with its acquisition by means of a home savings grant. A further objective is to increase the funds available in Australia for housing purposes by rewarding savings made with those institutions that provide the bulk of housing finance. The grant is a tax-free gift, not a loan.

The Scheme was introduced in 1964. Persons acquiring their home on or before 31 December 1976 may qualify under the *Homes Savings Grant Act* 1964, the conditions of which are explained in detail in Year Book No. 61, page 233. Briefly, to be eligible applicants must have been under the age of thirty-six, and married or engaged to be married, or divorced or widowed with dependent children, and the value of the home including the land must not have exceeded $22,500.

Persons acquiring their homes on and after 1 January 1977 may qualify under the *Homes Savings Grant Act* 1976. Under the conditions of this 'new' Home Savings Grant Scheme, applications for grants may be made by persons who, on and after 1 January 1977, contract to buy or build, or commence to construct, their first home in Australia. Applicants may be young or old, married or single. There is no limit to the value of the home, but it must be intended as the applicant's principal place of residence. Persons who are not Australian citizens must have the right to reside here permanently. Persons under eighteen years of age must be married or engaged. Applicants cannot have owned a home, or received a grant before.

The amount of grant is related to the 'savings period', which is the period of one, two or three complete years before the contract date, during which the applicant's must have saved in an acceptable form. The grant is calculated on the basis of $1 for each $3 of acceptable savings, including savings held at the beginning of the savings period. A maximum grant of $667 is payable in respect of a savings period of one year, $1,333 for two years and $2,000 for three years. Grants of $667 first become payable for people contracting to buy or build their home after 1 January 1977. The larger grants will first become payable from 1 January 1978 and 1979 respectively.

The main forms of savings that are acceptable are those most commonly used to accumulate savings for a home, that is, with banks (other than cheque accounts), building societies and credit unions. Savings expended on or before the contract date in connection with the home, such as for the deposit on the home or for the land, are also acceptable.

Full details of the new scheme are available in a booklet, 'Your Home Savings Grant', copies of which are available from the Department of Environment, Housing and Community Development and from savings institutions. Further information on the operation of the scheme is contained in the Department's Annual Report.

Operations under the Home Savings Grant Scheme

Particulars of applications received and approved during 1976–77 and from inception in respect of the *Home Savings Grant Act* 1964, and from 1 January to 30 June 1977 in respect of the *Homes Savings Grant Act* 1976, are set out below.

HOME SAVINGS GRANT ACT: OPERATIONS, 1976–77

		N.S.W.	*Vic.*	*Qld*	*S.A.(a)*	*W.A.*	*Tas.*	*A.C.T. (b)*	*Aust.*
Applications received	No.	2,280	1,387	1,807	571	840	467	9	7,361
Applications approved(*c*)	"	1,446	839	1,432	415	718	395	6	5,251
Grants approved	$'000	901	543	888	258	430	239	3	3,263
Average grant approved	$	623	648	620	622	599	604	570	621
Expenditure from National Welfare Fund	$'000	933	541	889	265	425	242	3	3,299

(*a*) Includes Northern Territory. (*b*) Includes Queanbeyan, N.S.W. (*c*) Includes applications received on or before 30 June 1976 and approved after that date.

HOME SAVINGS GRANT ACT 1964: OPERATIONS, 1972–73 TO 1976 77 AND TO 30 JUNE 1977

Year	*Applications received*	*Applications approved*	*Grants approved*	*Average grant approved*	*Expenditure from National Welfare Fund*
			$'000	$	$'000
1972–73	47,260	40,847	21,343	523	21,287
1973–74	41,609	40,278	24,814	616	24,658
1974–75	20,624	20,314	12,845	632	13,163
1975–76	11,373	10,398	6,487	624	6,575
1976–77	7,412	5,251	3,263	621	3,299
Total from 20 July 1964	**407,538**	**366,010**	**176,843**	**483**	**176,810**

HOME SAVINGS GRANT ACT 1976: OPERATIONS, 1 JANUARY TO 30 JUNE 1977

	N.S.W.	*Vic.*	*Qld*	*S.A.(a)*	*W.A.*	*Tas.*	*A.C.T.(b)*	*Aust.*
Applications received . No.	3,734	3,495	1,564	1,288	878	434	457	11,850
Applications approved . ,,	2,217	2,603	1,233	891	669	390	444	8,447
Grants approved . . $'000	1,445	1,714	795	569	431	250	287	5,491
Average grant approved $	652	658	645	638	644	641	647	650
Expenditure from National Welfare Fund . . $'000	1,314	1,526	763	539	395	239	260	5,035

(*a*) Includes Northern Territory. (*b*) Includes Queanbeyan, N.S.W.

Housing loan interest deduction scheme

The housing loan interest deduction scheme provides for the allowance of an income tax deduction for eligible housing loan interest payments. To qualify, interest paid after 30 June 1976 must relate to the first home of the taxpayer (or of his or her spouse) and be paid during the first five years of occupancy of that first home.

The amount of the housing loan interest deduction that may be an allowable deduction is governed by a 'net income' test under which all eligible interest paid in the relevant income year is deductible if the taxpayer concerned has a net income for that year of $4,000 or less. For a taxpayer with a higher net income, the percentage of interest deductible is 100 per cent reduced by 1 per cent for each $100 by which his or her net income for the year exceeds $4,000. The deduction is therefore not available to a person whose net income is $14,000 or more.

'Net income' for purposes of the scheme means gross income (including exempt income but not family allowances or domiciliary nursing care benefits) less expenses of a revenue nature incurred in the course of earning the income. In measuring the deduction allowable, the net income of the taxpayer is combined with the net income of his or her spouse.

The level of tax instalments deductible from salary or wages under the pay-as-you-earn (PAYE) system may be reduced to reflect the tax-savings available to an employee under the housing loan interest deduction scheme.

Housing loans insurance scheme

The Housing Loans Insurance Corporation was established under the *Housing Loans Insurance Act* to insure approved lenders against losses arising from the making of housing loans. For further information regarding the Corporation and earlier operation of the Scheme see Year Book No. 61. pages 235–6.

Following amendments to the Act in mid–1977, loans for owner-occupancy homes are insurable without limit on loan amount, interest rate or term. A once-and-for-all premium of 1.4 per cent of the amount of the loan is charged by the Corporation for the insurance of loans up to, but less than, 96 per cent of valuation, with the premium rate falling progressively to a minimum of 0.25 per cent on loans of less than 76 per cent of valuation. On loans from 96 to 100 per cent of valuation, the premium charged is 1.4 per cent of the valuation of the loan plus 10 per cent of the amount so calculated. The amendments to the Act also empowered the Corporation to insure loans for rental housing projects and loans to developers and builders.

From November 1965, when the Corporation commenced operations, until the end of June 1977, 242,046 loans to the value of $3,636.8 million had been insured under its full cover insurance.

State housing authorities

The following paragraphs describe briefly the organisation of the various State housing authorities and their activities in the fields of home construction and provision of homes on a rental basis (*see* pages 469–472 for their financial advances to persons wishing to purchase or build a home). For summarised figures of total government construction of houses and other dwellings, *see* pages 473 and 475. For a fuller description of the activities of State housing authorities and their financial advances to home purchasers or builders *see* Year Book No. 53, pages 283–91.

New South Wales—The Housing Commission of New South Wales. The Housing Commission of New South Wales was constituted in 1942, its principal function being the provision of low-cost housing to persons in the lower or moderate income groups.

Advances from the Commonwealth Government have provided most of the Housing Commission's capital funds and by 30 June 1977 had aggregated $956,649,000 of which $100,449,000 had been repaid. Other net funds of the Commission at 30 June 1977 comprised: repayable advances from the State, $109,163,000; public loans raised by the Commission, $18,401,000; grants from the Commonwealth Government, $31,618,000; grants from the State, $25,543,000 (including $9,435,000 from consolidated revenue and $16,108,000 from taxes on poker machines); provision for maintenance of properties, $7,142,000; and accumulated surplus, $102,365,000. In addition, the Commission owed $20,192,000 to creditors, mainly for purchase of land and work-in-progress. These funds were represented by fixed assets, $1,156,931 (including $231,100,000 debtors for purchase of homes); and current assets, $13,825,000. In 1976–77, the Commission's income was $111,882,000 (including rent $84,443,000 and interest $16,646,000); expenditure was $94,378,000 (interest, $40,325,000); and capital expenditure was $131,913,000.

Most of the permanent dwellings provided by the Commission have been erected under the Federal-State Housing Agreements. In 1976–77, 3,428 houses and flats were completed for the Housing Commission by private builders on contract to the Commission.

Upon request by other State Departments, the Housing Commission will erect houses for employees of those Departments, the Departments providing the necessary lands and funds. In addition, the Commission erects (with State funds) dwellings for employees of industries connected with decentralisation and development. Specially-designed units are erected by the Housing Commission to provide dwellings for elderly persons at rentals within their means. The rents of these units, as at 30 June 1977, were approximately $9.40 a week for elderly single persons and $15.10 a week for elderly couples. As at 30 June 1977, 9,431 units had been completed.

Victoria—Ministry of Housing. The Ministry of Housing co-ordinates all Government housing activities in Victoria. The authorities within the Ministry are the Housing Commission, Registry of Co-operative Housing Societies and Co-operative Societies, Home Finance Trust (*see* page 470), Decentralised Industry Housing Authority and Teacher Housing Authority.

Housing Commission, Victoria. The Housing Commission, Victoria, was set up in 1938 as a result of the Housing Act of the previous year. The main objects of the Commission as now laid down are the improvement of existing housing conditions; the provision of suitable rental housing for persons displaced by slum reclamation or living under unsatisfactory conditions, and for persons of limited means; the sale of houses to eligible persons and the making of advances to such persons to enable them to own their homes; the development of land for housing and related purposes; the giving of advice to the public with respect to finance for the purchase or construction of homes; the preparation and implementation of urban renewal proposals; and, since December 1974, the performance of the functions of the former Ministry of Aboriginal Affairs relating to Aboriginal housing. Since the signing of the 1945 Housing Agreement the construction of dwellings has been financed by the Commonwealth Government and Commission Funds.

At 30 June 1976, the Housing Commission had completed 81,792 dwelling units under the State Housing Scheme and Federal-State Agreements, Works and Services Loans, Service Personnel Agreements (Housing), and Grants for Aged Person Housing. Specially-designed dwelling units are erected by the Commission to provide dwellings for elderly persons at rentals within their means. To 30 June 1976, 6,682 such units had been completed. These are also included in the figures for total constructions above.

Queensland—The Queensland Housing Commission. The Queensland Housing Commission was established in 1945 to assist in meeting the housing shortage. In addition, the Commission was empowered to build houses itself, either for sale or for rental.

The Housing Commission finances its operations through a Treasury Trust Fund—the Queensland Housing Commission Fund. Total disbursements by the Commission for the year 1976–77 amounted to $97,310,042.

During 1974–75 the Commission provided 2,283 dwelling units, bringing the total number under all schemes since the revival of housing construction in 1944–45 to 53,063. Of this number 31,821 houses, or 60 per cent, were for home ownership, and 21,242, or 40 per cent, were for rental.

In the field of rental housing the Commission administers and acts as the constructing authority under the Federal-State Housing Agreements and the *States Grants* (*Dwellings for Pensioners*) and *States Grants* (*Housing*) legislation. Operating under the provisions of the *State Housing Act* 1945–1974, the Commission, through its scheme of workers' dwellings, makes advances for the construction of dwellings to eligible persons who own a suitable building site. The number of workers' dwellings completed during 1976–77 amounted to 702, making a total of 32,321 completions since the inception of the scheme. The Commission also has power to make advances, secured by mortgage, to firms for housing of employees. The Commission has power to sell houses under contract of sale conditions. Contract of sale agreements were made to purchase 829 of the Commission's houses during 1976–77.

South Australia—The South Australian Housing Trust. The South Australian Housing Trust operates under the *South Australian Housing Trust Act*, 1936–1973 and the *Housing Improvements Act*, 1940–1973 for the purpose of providing houses for families of limited means. Houses are built for both rental and sale, and to 30 June 1976, 79,329 (30 June 1977, 81,473) had been completed throughout the State, of which 42,021 (43,200 in 1977) had been built and sold under various schemes.

At 30 June 1976 (30 June 1977) the rents of five-roomed (i.e. three bedrooms) double units ranged from $15.50 ($19.50) a week for houses of the older type to $19.00 ($22.00) a week for houses then being completed. Single units rent ranged between $19.00 and $30.00 ($25.50–$35.00). Two-bedroom Villa flats were let at $28.50 ($30.00) and weekly rentals on two- and three-storey groups of flats ranged from $24.00 ($26.50) for 1 bedroom to $26.50 ($28.50) for 2 bedrooms in the metropolitan area. Of these, 2,142 (2,173 in 1977) flats were situated in the metropolitan area and included 374 (same for 1977) at Elizabeth. With few exceptions at 30 June 1976 (30 June 1977), rentals for medium density three-bedroom housing ranged from $32.50 ($34.00).

In 1953 the Trust began building cottage or pensioner flats for elderly people. At 30 June 1976 (30 June 1977) it had built 1,713 (1,848) cottage flats from its own resources and an additional 867 (same 1976–77) for charitable and non profit organisations.

During 1962–63 the Trust commenced construction of rental-purchase houses. The aim of this scheme is to provide a less expensive purchase house for the lower income groups. As expected, houses purchased under the scheme have, to some extent, replaced double-unit type rental houses. The Trust has also undertaken the construction of houses for various State Government Departments which need to house staff in country districts. In order to assist primary producers, the Trust erects houses on the client's own land for his own use or that of his employees, either using local materials or transporting pre-fabricated houses to the site.

There has been a considerable increase in the number of houses provided for disadvantaged and handicapped persons. Many of the houses were extensively altered to assist the handicapped to live a full and independent life.

The Trust is also responsible for administering all houses financed through the State Aboriginal Advancement Scheme in accordance with policies formulated by the Aboriginal Housing Board of South Australia. The Board comprises 6 Aboriginal members, and a representative each from the Department of Community Welfare, the Department of Aboriginal Affairs, Aboriginal Hostels Ltd and the Trust. The Trust provides all the normal housing management services for the houses. At the end of June 1976 (1977), a total of 585 (696) had been built or purchased in South Australia.

Western Australia—State Housing Commission of Western Australia. The activities of the State Housing Commission extend throughout the whole State. In addition to construction of a variety of dwellings for its own rental and purchase program as determined under the *State Housing Act*, the Federal-State Housing Agreements prior to 30 June 1971, the *States Grants* (*Housing*) *Act* 1971 and the 1973–1974 Housing Agreement, its activities include: construction of houses for other Government Departments (both Commonwealth and State Government, and semi- and local government authorities) in Western Australia; and construction and maintenance of houses for the Government Employees' Housing Authority.

At 30 June 1977, the Commission had completed under all schemes since 30 June 1944 a total of 64,246 units of accommodation throughout the State (including 12,046 units completed under the *Defence Services Homes Act* 1918).

During the twelve months ended 30 June 1977, 1,099 units of accommodation were completed: metropolitan area, 540; country, 448; and north of 26th parallel, 111. A further 763 units were under construction.

Building Societies are a major source of housing finance in Western Australia. At 30 June 1977, it was estimated that the assets of all societies were about $1,087 million. Currently, 10 permanent and 597 terminating societies are operating. As a condition of eligibility for assistance under the *Housing Agreement Act* 1973, the State is required to allocate not less than 20 per cent nor more than 30 per cent of its housing authority new borrowings for advances through terminating building societies.

Under the *Housing Loans Guarantee Act* 1957–1972, the guarantees provided to financial institutions enable loans to be made to lending institutions with full security. The Act enables building societies and other approved bodies to make high ratio advances to families of low and moderate means without additional charge. The interest rate charged to the borrower may not exceed 10.75 per cent reducible. Loans may be made for up to 95 per cent of the value of the house and land or a specified sum, whichever is the lesser amount. The maximum loan permitted in respect of the metropolitan region and the region south of the 26th parallel is $26,500. For a new house situated north of the 26th parallel and in the North West or Eastern Land Divisions, the maximum loan is $43,500 and in the Kimberley Land Division, $45,500.

Tasmania—Department of Housing and Construction (*Housing Division*). The Department of Housing and Construction, established in September 1977, is comprised of the Housing and Construction Divisions. The Housing Division is continuing the functions of the former Housing Department which was established in 1953 for the purpose of administering that portion of the *Homes Act* 1935 relating to the acquisition and development of land for housing purposes and the erection of homes for rental and sale by purchase contract, and the *Casual Workers' and Unemployed Persons' Homes Act* 1936.

During 1975–76 and 1976–77, dwelling completions numbered 829 and 792 respectively. Construction since 1944 totalled 16,016 at 30 June 1976. These were comprised of 14,773 detached and semi-detached units (9,874 of timber), 691 elderly persons' flatettes, 316 multi-unit flats and 236 villa units.

As at 30 June 1977, the total was 16,808, comprised of 15,456 detached and semi-detached units (9,884 of timber), 766 elderly persons' flatettes, 316 multi-unit flats and 270 villa units.

The Division now allots all welfare housing accommodation on a rental basis. Weekly rental of a new typical standard home was about $36.00 at 30 June 1976 and $37.00 at 30 June 1977. In certain necessitous cases, rental rebates are allowed. Under current policy a married couple occupying an elderly persons' unit and whose only income is the age pension pay $10.00 a week, while a single person solely dependent on the pension pays $7.00 a week.

Housing schemes in Australian Territories

Northern Territory. In 1946 control of all government-owned residences in the Territory (excluding those belonging to the Defence Services or Commonwealth Railways or attached to post offices) was vested in the Administration. The Northern Territory Housing Commission was established in 1959 and operates under authority of the *Housing Ordinance* 1959–1971. The Commission became autonomous on 1 October 1969 and provides rental housing for persons of limited means who are not adequately housed and who are not officers of the Commonwealth Public Service. At 30 June 1977 the Commission controlled 3,428 houses, flats and demountables for rental purposes: 2,210 of these were in Darwin (including 445 flats and 490 demountables), 837 in Alice Springs (including 262 flats), 162 in Katherine (including 29 flats), 201 in Tennant Creek (including 15 flats), 6 in Adelaide River, 2 each in Elliot and Mataranka, and 8 in Pine Creek.

Australian Capital Territory. The Commonwealth Government provides houses and flats for rental to persons on low incomes who are employed in the Australian Capital Territory. At 30 June 1977 the Department of the Capital Territory controlled 8,135 houses and 3,083 flats for rental purposes. Government rental houses may be purchased by eligible tenants.

Summary of rental activities of government authorities

The first of the following two tables shows the revenue from rental for dwellings under control of government housing authorities each year from 1972–73 to 1976–77, and the second shows the number of tenants paying rent for dwellings under control of government housing authorities at the end of each year 1972–73 to 1976–77.

GOVERNMENT HOUSING AUTHORITIES: REVENUE FROM RENTALS
($'000)

Year	*N.S.W.*	*Vic.(a)*	*Qld(b)*	*S.A.(c)*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1972–73	36,726	22,778	11,407	17,150	12,209	2,578	4,335	5,598	112,781
1973–74	42,378	26,820	12,104	18,730	12,791	3,404	2,313	5,555	124,095
1974–75	49,401	31,596	13,959	22,271	15,810	4,281	1,739	7,479	146,536
1975–76	63,870	42,031	19,326	28,930	17,040	5,569	2,486	10,839	190,091
1976–77	84,242	n.a.	26,766	35,913	19,586	7,368	3,281	15,626	192,782

(*a*) Figures relate to Housing Commission only. (*b*) Excludes rentals in respect of tenanted temporary dwellings. (*c*) Excludes rentals in respect of temporary and emergency dwellings to 30 June 1977, by which date all had been removed.

GOVERNMENT HOUSING AUTHORITIES: NUMBER OF TENANTS PAYING RENT

Year	*N.S.W.*	*Vic.(a)*	*Qld(b)*	*S.A.(c)*	*W.A.*	*Tas.(d)*	*N.T.*	*A.C.T.(d)*	*Aust.*
1972–73	69,178	40,335	18,463	35,155	24,055	4,560	4,826	9,651	206,223
1973–74	70,510	39,996	18,183	35,592	24,304	4,841	2,517	9,506	205,449
1974–75	73,021	40,726	18,947	36,752	25,767	5,350	2,012	10,481	213,056
1975–76	78,325	40,057	20,508	37,847	24,791	6,150	3,109	11,152	221,939
1976–77	80,510	n.a.	20,772	39,013	24,818	6,695	3,428	10,967	186,203

(*a*) Figures relate to Housing Commission only. (*b*) Excludes tenanted temporary dwellings. (*c*) Excludes temporary and emergency dwellings (All removed by 30 June 1977). (*d*) Number of occupied dwellings at 30 June.

Advances to home purchasers

Many prospective home purchasers wish to borrow for the purpose of constructing or purchasing their own homes. Usually the loan is covered by way of mortgage of the home to be constructed or bought. Such loans are provided from a number of private sources and from agencies owned or guaranteed by the Commonwealth or State Governments. The information in this section concerns the direct loans made to home purchasers by the more important institutional lenders. Loans to institutions which in turn lend moneys to home purchasers and loans to contract builders, etc. are excluded as far as possible. The loans may be for the construction of new dwellings, the purchase of existing dwellings, for additions, renovations, etc., as first or subsequent mortgages, overdrafts and so on. While figures of all loans to home purchasers are not available, the institutions mentioned account for a significant proportion of total loans. Details of the terms and conditions of lending are given, together with available information on the number and value of loans made.

State and Territory authorities and agencies

New South Wales

Rural Bank of New South Wales—Sale of Homes Agency. A Sale of Homes Agency was established in 1954 to arrange for the sale on terms of houses erected by the Housing Commission of New South Wales. The Agency's operations began with the sale to selected purchasers of 100 houses made available by the Commission during 1954–55 and 1955–56. The sales were made on the basis of 10 per cent deposit and repayment of the balance over a maximum period of forty years, with interest at 4.5 per cent per annum. Total advances under that scheme amounted to $646,648; at 30 June 1977 the advances outstanding amounted to $161,235 in respect of 43 houses.

Since 1956 the Sale of Homes Agency has acted as the agent of the Housing Commission in arranging the sale on terms of houses erected under the Federal-State Housing Agreements. The terms of sale provide for a minimum deposit of $200 and repayment of the balance over a maximum period of forty-five years, with interest rates since the inception of the scheme ranging from 4.25 to 6.75 per cent per annum. Particulars of the advances made by the Agency in connection with the sale of houses erected under the 1956, 1961 and 1966 Agreements and the *States Grants (Housing) Act* of 1971 are given in the following table.

RURAL BANK OF NEW SOUTH WALES SALE OF HOMES AGENCY ADVANCES FOR HOMES SOLD UNDER THE 1956, 1961 AND 1966 FEDERAL-STATE HOUSING AGREEMENTS AND THE STATES GRANTS (HOUSING) ACT OF 1971

	Advances during year		*Total advances to end of year*		*Advances outstanding at end of year(a)*	
Year	*Number of houses*	*Amount*	*Number of houses*	*Amount*	*Number of houses*	*Amount*
		$'000		$'000		$'000
1972–73 . . .	974	13,970	28,819	239,156	22,942	180,438
1973–74 . . .	76	1,158	28,895	240,313	21,550	167,995
1974–75 . . .	79	1,514	28,974	241,827	20,779	160,422
1975–76 . . .	180	4,402	29,154	246,229	19,939	154,635
1976–77 . . .	22	573	29,176	246,802	18,905	144,899

(*a*) Comprises principal outstanding and loan charges due but not paid.

The Sale of Homes Agency also acts as agent for the Housing Commission in arranging the sale of houses erected by the Commission on applicants' land. Under this scheme persons who have established a housing need may apply to the Commission to have a standard-type dwelling erected on their own land. The houses are sold, at a price equivalent to their capital cost, on the same terms as for houses erected under the 1956 to 1966 Housing Agreements and the *States Grants* (*Housing*) *Act* of 1971. Up to 30 June 1977, 768 houses had been built at a cost of $8,196,000; the balance of indebtness at that date was $4,660,000.

Rural Bank of New South Wales—Other loans. The Rural Bank of New South Wales provides assistance to individuals for the erection or purchase of homes and for other approved purposes associated with homes. Advances are based on the bank's official valuation of the dwelling. The current rate of interest on new long-term loans for housing purposes is 9.75 per cent per annum.

Victoria

Housing Commission of Victoria. Commission policy is to encourage home ownership; of the 81,792 dwelling units built up to 30 June 1976 under the State Housing Scheme, the Federal State Agreements and Housing Grant, a total of 41,317 houses have been sold (24,612 in the metropolitan area and 16,705 in the country).

Home Finance Trust. The Home Finance Trust is a corporate body constituted under the *Home Finance Act* 1962. It is authorised to receive money on deposit, the repayment of which is guaranteed by the Government of Victoria, for the purpose of making loans for housing on the security of first and second mortgages. Under the terms of the Act the Trust is precluded from making loans in certain circumstances.

The number of loans granted by the Trust to 30 June 1976 and subsisting totalled 3,054 on the security of first mortgages and 626 on second mortgages, the amounts involved being $24.9 million and $1.7 million respectively.

(*See* Savings Banks, page 243 of Year Book No. 61, for activities of the State Savings Bank of Victoria.)

Queensland

Queensland Housing Commission. The major housing scheme financed solely by the State Government is the Workers Dwelling Scheme. Under the *State Housing Act* 1945–74, an eligible person who is the owner of a suitable building site may obtain an advance, secured by mortgage on the land, from the Housing Commission for the erection of a worker's dwelling. The Housing Commission also provides finance for the purchase of homes constructed by the Commission to the applicant's design on Commission land under contract of sale. From 13 February 1975, the maximum advance under both schemes was increased from $15,000 to $18,000. Interest on advances in respect of applications lodged on or after 20 December 1975 is chargeable at 7½ per cent, and repayments may be made over periods up to 45 years.

South Australia

South Australian Housing Trust Sales Schemes. Prospective purchasers of Housing Trust houses (other than Rental Purchase houses) may purchase either by paying cash or by paying a deposit and arranging for a loan on security of a first mortgage from any of the recognised lending authorities. In cases where the deposit and the first mortgage so raised are insufficient, the Trust may advance the balance of the house price on security of a second mortgage, the term of which is usually co-terminous, but not exceeding 30 years. The interest rate was 10.25 per cent at 30 June 1976 (the same as at 30

January 1977), and the interest is adjusted quarterly. During 1975–76 (1976–77) the Trust commenced 244 (131) second mortgages valued at $970,000 ($2,286,000). At 30 June 1976 (1977) second mortgages totalled 6,277 (5,852) and the balance outstanding at that date was $8,400,000 ($9,900,000). A minimum deposit of $100 was required for houses built under the rental purchase scheme to 31 December 1976. From 1 January 1977 this was increased to $500 in order to comply with the Home Savings Grant Scheme. The balance of the purchase price is repayable to the Trust in weekly instalments over periods up to 40 years at 5.5 per cent interest per annum.

State Bank of South Australia. The State Bank and the Housing Trust are the principal agents of the State Government for the distribution of moneys received under housing assistance arrangements with the Commonwealth Government. During 1976–77, 2,818 individual loans were made for a total outlay of $50,074,357 in the Home Builders' Account. The balance of loans outstanding on this account at 30 June 1977 totalled $239,101,101. The Bank administers the *Advances for Homes Act*, 1928–1972 on behalf of the State Government. However, advances under this Act have virtually ceased and the only funds being made available are for repairs to tenancy houses and for extra bedroom accommodation. The balance outstanding under this Act at 30 June 1977 was $10,820,004. The present maximum housing loan is $18,000, repayable over a period not exceeding forty years at a rate of interest of 6.75 per cent per annum calculated on monthly balances.

(*See* Savings Banks, page 243 of Year Book No. 61, for activities of the Savings Bank of South Australia.)

Western Australia

State Housing Commission of Western Australia. Under current policy commenced by the Commission in October 1976, all sales are on a cash basis through approved Terminating Building Societies with finance to be funded from the Home Builders' Account where the family is eligible under the income criteria of the Federal-State Housing Agreement 1973; or from an outside source where the family is ineligible for Home Builders' Account assistance.

Assistance through Terminating Building Societies is available to acceptable applicants under first mortgage conditions if they are able to meet the eligibility requirements. Funds are not available for second mortgages.

The Commission can refer only those applicants who are able to satisfy eligibility requirements to the various Terminating Building Societies. Acceptance of their application for a loan lies with the Society concerned. They are not bound to assist Commission applicants. The interest rate on all advances is 5.75 per cent per annum and the repayment period is a maximum of thirty years.

The Societies are bound by statute to accept no less than 3 per cent of the value of the house and land as deposit, but a deposit of 5 per cent or greater is sought by the societies. If the amount of finance required is in excess of the combined maximum advance and deposit provided, a second mortgage or personal loan will be required to bridge the gap.

The income eligibility figure varies according to the movements of seasonally adjusted average weekly earnings; currently, an applicant in the metropolitan area cannot have an income exceeding $188.90 per week, plus $2.00 per week for each dependent child under twenty-one in excess of two. The maximum advance is $24,500, with $29,000 being the maximum value of the house and land.

The remainder of the State is divided into areas in which the income eligibility varies from $188.20 per week to $257.53 per week plus $2.00 per week for each dependent child under twenty-one years in excess of two. The maximum advance in these areas varies from $25,500 to $45,000, with the maximum value of house and land varying from $30,000 to $50,000.

The *State Housing Act* provides for limited assistance by way of mortgage to applicants who are building or purchasing new houses. There was no allocation of funds to this Act in 1976–77.

(*See* Savings Banks, page 243 of Year Book No. 61 for activities of the Savings Bank Division of the Rural and Industries Bank of Western Australia.)

Tasmania

Department of Housing and Construction, Housing Division. The interest rate on purchase contract loans at 1 July 1976 was 5.75 per cent. This remained unchanged in 1976–77. The number of loans outstanding at 30 June 1976 was 7,879 and at 30 June 1977 was 7,460. The amounts outstanding at those dates were $65,650,000 and $62,854,000 respectively.

Agricultural Bank of Tasmania. The Agricultural Bank, as an approved lending authority under the current Federal State Housing Agreement, provides loans to prospective buyers under the provisions of the *Homes Act*. To be eligible for a loan, an applicant, whose income is subject to a needs test, must be married, about to be married or have dependants for whom it is necessary to provide a home. Loans up to a maximum of $22,500 or 97 per cent of the Bank's valuation of land and dwelling, whichever is the lesser, will be considered on acceptable proposals throughout Tasmania. Such loans, currently bearing interest at 5.75 or 6.25 per cent depending on the application of the needs test, are repayable by equated monthly instalments over periods up to thirty years. Other limited funds, which are not subject to a needs test, are currently available at 9.0 per cent.

During 1975–76, 431 loans totalling $6,100,000 were approved. During the year 1976–77, 393 loans totalling $8,400,000 were approved. Since November, 1945 a total of 6,984 loans amounting to $61,758,000 has been approved, of which 4,253 have been for the erection of dwellings, and 2,731 for the purchase of existing homes. Total loans outstanding at 30 June 1976 amounted to $38,856,000. The figures exclude advances to co-operative housing societies.

Northern Territory

Loans Scheme. This scheme was commenced in 1953 and is administered by the Home Finance Trustee under the *Housing Loans Ordinance* 1949–1975. Advances may be made for the erection of a house, the purchase or enlargement of an existing house, the completion of a partially erected dwelling, or the discharge of a mortgage already existing. Loans are provided on a deposit of 5 per cent of the first $4,000 and 10 per cent of the balance of the Trustee's valuation up to a maximum of $15,000. The rate of interest charged is 10 per cent per annum reducible to 9 per cent per annum if instalment payments are made on or before the due date. The maximum period of repayment is thirty-two years for brick houses and twenty-five years for other houses. During 1976–77, 215 loans totalling $3,219,421 were approved.

Sales Scheme. Tenants of government-owned houses under the control of the Department of the Northern Territory may purchase the dwellings they occupy either for cash or on terms requiring a minimum deposit of 5 per cent of the purchase price with repayments over a maximum period of forty-five years, including interest at either 5.75 per cent or 9 per cent subject to a means test.

Housing Commission Sales Scheme. Since the July 1977 amendment of the *Housing Ordinance* 1959–1977, the Housing Commission has been permitted to sell its houses to tenants in occupation. To qualify for purchase, tenants are required to have completed a period of five years' continuous satisfactory tenancy (as assessed by the Commission) after which period they may purchase either the dwelling in which they are living or select from a range of new Commission houses. The terms require a cash deposit of $500 and repayment of the remainder of the loan over a period not exceeding 45 years. There is no prescribed limit to the amount of the loan and the two-tiered interest structure is fixed by the Commission from time to time and is applied according to applicant incomes.

Australian Capital Territory

Loans to a maximum of $20,000 over a maximum term of thirty-two years may be granted by the Commissioner for Housing for the purchase or erection of a new dwelling in the Australian Capital Territory to a person who does not already own a dwelling in the Australian Capital Territory or Queanbeyan; is not employed outside the Australian Capital Territory; and has not, or whose spouse has not, already had financial assistance from Government funds for housing in the Australian Capital Territory.

A means test is applied for loans. Applicants whose main breadwinner's income does not exceed 95 per cent of the Australian Capital Territory male seasonally-adjusted average weekly earnings may qualify for a loan. An additional income allowance of $2.00 per week is made for each dependent child in excess of two.

The rate of interest is 10¼ per cent, with a reduction of 1 per cent if payment is made by the due date. A concessional rate of 6¾ per cent (less 1 per cent if payment is made by the due date), applies if the combined gross income of the breadwinner and spouse do not exceed 95 per cent of the Australian Capital Territory seasonally adjusted male average weekly earnings. At 30 June 1977, 13,604 houses were under mortgage to the Commissioner.

Government rental houses valued at current market values may be sold to tenants. The basis of the sale is a minimum deposit of 5 per cent of the purchase price fixed by the Department of the Capital Territory with no limit to the amount which may be held on mortgage from the Department. Repayment of the amount covered by mortgage may be made over a maximum period of thirty-two years. There are two rates of interest applicable: the normal rate is 10¼ per cent (less one per cent for payment by the due date) on the first $15,000 and 12¼ per cent (less one per cent as above) on the remainder of the mortgage; while a concessional rate of 6¾ per cent (less one per cent for payment by the due date) applies in situations where the combined incomes of breadwinner and spouse do not exceed 95 per cent of Australian Capital Territory average weekly earnings. In both instances, an allowance of $2 for each dependent child after the second child is deducted from total gross income. To 30 June 1977, 14,153 houses had been sold to tenants.

Savings banks, trading banks, life insurance companies and registered building societies

For information on loans approved to individuals for owner occupied housing *see* Chapter 21, Private Finance.

CONSTRUCTION

Building

Building activity is a significant indicator of the level of economic activity. In addition, the level of building activity and the types of buildings being constructed affect the Australian physical and social environment. Building approvals statistics give an indication of the potential future level of investment of private individuals, companies and government agencies in approved building construction. As such, they provide information about potential future building activity. Building operations statistics show the level of actual building construction activity in terms of the level of commencements and completions, building jobs under construction and the value of work done and yet to be done on building jobs.

The collection covers all new dwellings, new other building jobs valued at $10,000 and over, and alterations and additions (to both dwellings and other building) valued at $10,000 and over. From 1966–67 to 1972-73, alterations and additions of $10,000 and over were included with new dwellings and new other building. From 1973–74, alterations and additions (of $10,000 and over) to new dwellings are shown separately, but for other building, new work and alterations and additions continue to be shown combined.

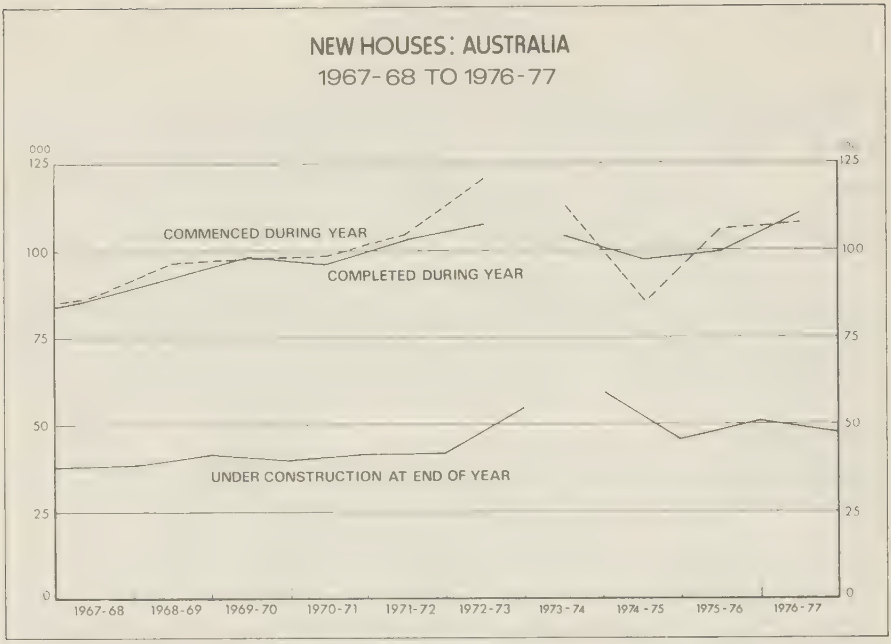
Number of new houses

The next table provides a summary of the number of new houses approved, commenced, completed and under construction by type of ownership in each State and Territory during the years 1975–76 and 1976–77. For a graph showing these details over a ten-year period, *see* plate 40, page 474.

NUMBER OF NEW HOUSES
('000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1975–76									
Private—									
Approved	24.2	27.9	19.7	11.5	14.9	2.7	1.1	3.6	105.6
Commenced	22.3	26.5	17.0	10.0	13.8	2.4	0.8	3.4	96.2
Completed	20.5	23.3	16.1	8.4	11.2	2.0	0.5	3.3	85.4
Under construction(*a*)	9.4	15.9	4.7	4.5	6.2	1.7	0.4	1.6	44.2
Government—									
Approved	1.0	2.7	0.9	1.3	0.7	0.7	1.5	0.4	9.2
Commenced	1.6	1.9	1.4	1.5	0.7	0.7	1.8	0.8	10.3
Completed	4.6	2.8	1.8	1.5	0.9	0.8	1.0	1.1	14.5
Under construction(*a*)	1.3	1.5	0.8	1.4	0.2	0.3	1.1	0.5	7.0
Total—									
Approved	25.3	30.6	20.6	12.8	15.6	3.4	2.5	4.0	114.8
Commenced	23.9	28.4	18.4	11.5	14.5	3.1	2.6	4.2	106.6
Completed	25.1	26.1	17.9	9.9	12.1	2.8	1.6	4.4	99.9
Under construction(*a*)	10.6	17.4	5.5	5.9	6.4	2.0	1.5	2.1	51.3
1976–77									
Private—									
Approved	26.5	27.1	18.8	9.7	12.5	2.6	0.6	1.8	99.6
Commenced	25.8	27.3	17.5	9.6	13.1	2.2	0.7	1.9	98.1
Completed	24.4	26.7	17.8	10.6	14.5	2.4	0.7	2.5	99.6
Under construction(*a*)	10.3	15.8	4.4	3.4	4.6	1.5	0.4	1.0	41.4
Government—									
Approved	1.7	2.1	1.7	1.5	0.9	0.7	0.6	0.5	9.8
Commenced	1.8	2.5	1.3	1.5	0.9	0.7	1.4	0.6	10.7
Completed	2.0	2.2	1.3	1.5	0.7	0.7	1.8	0.6	10.9
Under construction(*a*)	1.1	1.8	0.8	1.3	0.4	0.3	0.6	0.4	6.8
Total—									
Approved	28.2	29.2	20.6	11.2	13.4	3.3	1.2	2.3	109.4
Commenced	27.6	29.8	18.8	11.1	14.0	3.0	2.1	2.5	108.8
Completed	26.4	28.9	19.1	12.1	15.2	3.1	2.5	3.1	110.4
Under construction(*a*)	11.4	17.6	5.2	4.8	5.0	1.8	1.0	1.4	48.2

(*a*) At end of period.



NEW HOUSES: AUSTRALIA
1967-68 TO 1976-77

NOTE. BREAK IN SERIES FROM 1973-74, *SEE* PAGE 473

PLATE 40

Number of new houses completed by material of outer walls

The use of certain materials for outer walls is dictated by such factors as cost, durability, appearance and climatic conditions. Changes in the materials used over time indicate changes in the characteristics of the housing stock.

The following table shows the number of new houses completed in each State and Territory during the years 1975–76 and 1976–77, classified according to the material of their outer walls.

NUMBER OF NEW HOUSES COMPLETED BY MATERIAL OF OUTER WALLS
('000)

Material of outer wall	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust*
				1975–76					
Brick, concrete and stone	1.5	1.3	1.9	3.7	9.3	0.2	0.6	0.1	18.5
Brick veneer . .	18.0	21.8	8.9	4.4	1.3	2.3	0.1	4.3	61.1
Timber . . .	1.1	0.8	2.3	0.2	..	0.1	0.1	..	4.6
Asbestos-cement . .	4.2	2.1	4.6	1.5	1.4	0.2	0.4	..	14.3
Other . . .	0.5	0.1	0.2	..	0.1	0.1	0.4	..	1.4
Total . .	**25.1**	**26.1**	**17.9**	**9.9**	**12.1**	**2.8**	**1.6**	**4.4**	**99.9**
				1976–77					
Brick, concrete and stone	1.7	1.8	2.0	3.7	12.3	0.2	1.7	0.1	23.5
Brick veneer . .	19.6	23.4	10.1	6.5	1.4	2.5	0.1	3.0	66.6
Timber . . .	0.8	1.2	2.0	0.2	0.1	0.1	0.1	..	4.6
Asbestos-cement . .	3.9	2.3	4.7	1.6	1.3	0.2	0.3	..	14.4
Other . . .	0.4	0.1	0.2	0.1	0.1	0.2	0.3	..	1.4
Total . .	**26.4**	**28.9**	**19.1**	**12.1**	**15.2**	**3.1**	**2.5**	**3.1**	**110.4**

Number of new other dwellings

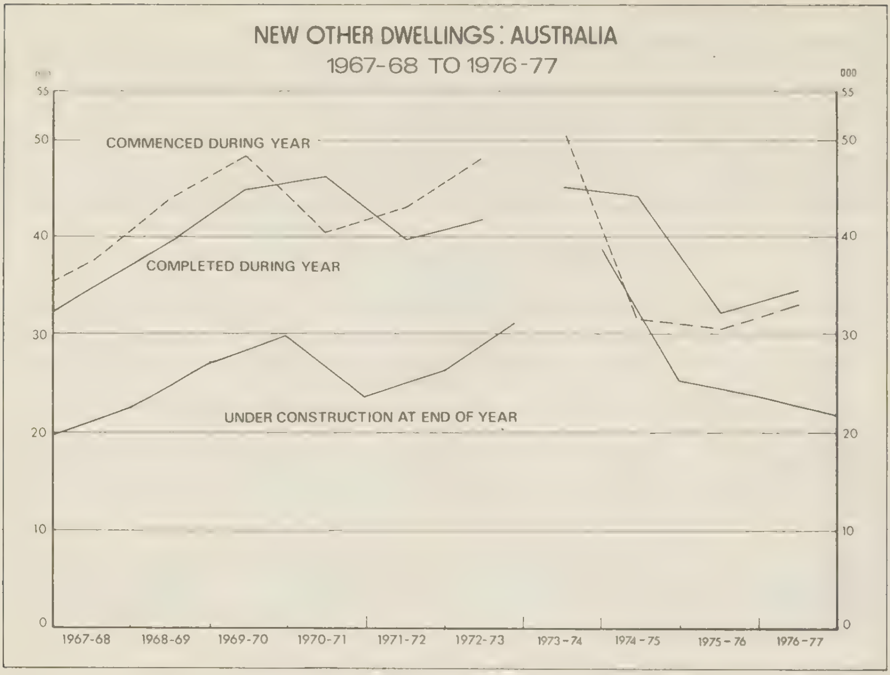
The level of other dwelling construction is highly variable and does not follow the regular pattern experienced in house construction. This can mainly be explained by the large extent of speculative building of private flats and also the generally larger size of such projects. Although construction of government-owned other dwellings is substantial, the proportion of government-owned other dwellings to total other dwellings constructed is smaller than that of government-owned houses to total houses.

The following table shows the number of new other dwellings approved, commenced, completed and under construction by type of ownership in each State and Territory during the years 1975–76 and 1976–77. For a graph showing these details over a ten year period, see plate 41, page 476.

NUMBER OF NEW OTHER DWELLINGS
('000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
					1975–76				
Private—									
Approved	6.3	8.1	3.9	3.4	5.3	1.0	0.2	0.3	28.6
Commenced	7.1	7.7	3.9	2.9	4.6	0.9	0.1	0.2	27.5
Completed	8.2	7.7	3.9	3.3	2.6	0.8	0.2	0.3	26.9
Under construction(*a*)	5.4	6.4	2.2	2.0	3.0	0.7	0.1	0.2	20.0
Government—									
Approved	0.6	0.6	0.1	0.5	0.5	0.1	0.1	0.2	2.7
Commenced	1.1	0.3	0.1	0.5	0.5	0.1	0.1	0.2	3.0
Completed	2.8	0.5	0.2	0.8	0.4	0.1	0.1	0.3	5.2
Under construction(*a*)	1.8	0.4	0.1	0.6	0.4	0.1	0.2	0.2	3.7
Total—									
Approved	6.9	8.8	4.0	4.0	5.8	1.1	0.3	0.5	31.3
Commenced	8.2	8.1	4.0	3.4	5.1	1.0	0.3	0.4	30.5
Completed	11.0	8.2	4.1	4.0	2.9	0.9	0.3	0.7	32.1
Under construction(*a*)	7.2	6.8	2.3	2.6	3.4	0.8	0.2	0.4	23.7
					1976–77				
Private—									
Approved	6.4	6.9	5.0	2.6	5.3	0.9	0.3	0.4	27.7
Commenced	7.2	7.4	4.8	2.4	5.0	0.8	0.2	0.5	28.3
Completed	7.6	8.2	4.8	2.6	5.6	0.8	0.1	0.3	30.0
Under construction(*a*)	4.9	5.4	2.1	1.7	2.5	0.7	0.2	0.4	18.0
Government—									
Approved	2.2	0.5	0.2	0.6	0.4	0.2	0.1	0.2	4.3
Commenced	2.1	0.7	0.2	0.7	0.5	0.2	0.1	0.1	4.6
Completed	1.9	0.7	0.1	0.7	0.6	0.1	0.2	..	4.3
Under construction(*a*)	2.0	0.4	0.1	0.7	0.3	0.1	0.1	0.2	4.0
Total—									
Approved	8.6	7.4	5.1	3.2	5.6	1.1	0.4	0.6	32.0
Commenced	9.3	8.1	4.9	3.1	5.5	1.0	0.3	0.6	32.9
Completed	9.5	8.9	5.0	3.3	6.2	0.9	0.3	0.3	34.4
Under construction(*a*)	7.0	5.8	2.2	2.4	2.8	0.9	0.3	0.6	21.9

(*a*) At end of period.



NOTE, BREAK IN SERIES FROM 1973-74, *SEE* PAGE 473

PLATE 41

Number, average value, average value per square metre and average size of private contract built houses

The following table shows the number, average value, average value per square metre and average size in square metres of private contract built new houses commenced in each Capital City Statistical Division. The average value and average value per square metre are based on the final contract price of houses when complete (or estimates of this price) provided by contractors at the time of commencement of building work.

NUMBER, AVERAGE VALUE, AVERAGE VALUE PER SQUARE METRE AND AVERAGE SIZE OF NEW PRIVATE CONTRACT BUILT HOUSES COMMENCED: CAPITAL CITY STATISTICAL DIVISIONS

	Sydney	*Melbourne*	*Brisbane*	*Adelaide*	*Perth*	*Hobart*	*Darwin*	*Canberra*	*All capital cities*
				1975–76					
Number ('000)	8.1	13.7	6.9	6.9	10.4	0.4	n.a.	3.2	49.7(*a*)
Average value ($'000)	24.7	25.9	21.8	24.4	22.4	29.8	n.a.	31.9	24.6(*a*)
Average size (sq. m)	145	146	129	132	141	150	n.a.	147	141(*a*)
Average value per sq. m ($)	171	178	169	184	159	199	n.a.	217	175(*a*)
				1976–77					
Number ('000)	10.4	13.3	7.1	6.1	8.6	0.3	0.2	1.8	47.8
Average value ($'000)	25.9	29.8	24.1	28.5	27.3	33.2	41.8	35.4	27.8
Average size (sq. m)	139	149	133	136	144	145	130	159	142
Average value per sq. m ($)	186	200	182	210	190	229	322	222	196

(*a*) Excludes Darwin.

Value of buildings

The following table shows the value of all buildings approved, commenced, completed, under construction, work done and work yet to be done in Australia for the years 1975–76 and 1976–77, according to the class of building. The classification of other buildings by type of building is according to the function a building is intended to serve as specified on building authorisations.

VALUE(*a*) BY CLASS OF BUILDING

($'000)

Class of building	*Approved*	*Commenced*	*Completed*	*Under Construction(b)*	*Work done (c)*	*Work yet to be done (b)*
			1975–76			
New houses	2,757.2	2,604.4	2,274.3	1,337.2	2,480.3	692.8
New other dwellings	499.6	518.3	532.4	450.4	563.1	227.2
Total new dwellings	*3,256.8*	*3,122.6*	*2,806.7*	*1,787.6*	*3,043.4*	*920.0*
Alterations and additions to dwellings	*211.1*	*206.1*	*169.7*	*78.5*	*190.7*	*38.3*
Hotels, etc.	58.3	64.1	63.6	64.6	69.0	29.9
Shops	181.7	217.0	176.8	209.9	202.0	101.8
Factories	250.4	239.8	271.7	180.2	245.7	91.5
Offices	311.6	265.2	564.4	928.2	515.9	420.7
Other business premises	185.8	211.9	177.4	240.9	213.5	108.6
Education	296.5	344.3	581.0	480.6	519.5	203.7
Religion	21.1	20.4	17.9	18.4	19.8	8.8
Health	278.6	288.7	159.1	571.2	265.1	299.7
Entertainment and recreation	125.7	119.0	115.4	115.7	125.6	57.0
Miscellaneous	166.4	137.4	139.2	228.5	172.4	100.1
Total other building	*1,876.1*	*1,907.8*	*2,266.6*	*3,038.1*	*2,348.5*	*1,421.8*
Total all building	**5,344.1**	**5,236.6**	**5,243.0**	**4,904.2**	**5,582.6**	**2,308.1**
			1976–77			
New houses	2,944.4	3,006.7	2,965.0	1,413.8	3,040.8	711.5
New other dwellings	596.5	658.2	670.1	474.1	676.4	245.0
Total new dwellings	*3,540.9*	*3,665.0*	*3,635.1*	*1,887.8*	*3,717.2*	*956.4*
Alterations and additions to dwellings	*250.6*	*266.4*	*252.5*	*96.1*	*263.3*	*46.5*
Hotels, etc.	58.7	70.8	80.3	69.6	73.0	33.6
Shops	255.1	261.3	223.1	257.7	254.9	119.0
Factories	361.1	376.6	295.6	286.1	360.4	138.9
Offices	250.2	319.7	489.4	844.1	444.2	381.6
Other business premises	217.8	230.5	265.1	232.3	264.1	103.9
Education	416.0	411.1	439.3	482.0	407.9	231.7
Religion	25.8	25.4	27.5	17.3	25.9	9.5
Health	199.2	247.8	261.0	588.7	321.1	273.8
Entertainment and recreation	109.0	114.1	154.1	85.3	142.9	40.1
Miscellaneous	202.6	195.9	211.2	248.8	170.5	160.8
Total other building	*2,095.5*	*2,253.3*	*2,446.5*	*3,111.9*	*2,464.9*	*1,492.9*
Total all building	**5,887.0**	**6,184.6**	**6,334.1**	**5,095.7**	**6,445.5**	**2,495.8**

(*a*) Refer to paragraph 2 page 000. (*b*) At end of period. (*c*) During period.

Persons working on jobs carried out by builders of new buildings

The following table shows the number of contractors, sub-contractors and wage earners working on jobs carried out by builders of new buildings in each State and Territory as at 30 June 1976 and 30 June 1977, classified according to their main building occupations and the type of building on which they were working.

NUMBER OF PERSONS WORKING ON BUILDING JOBS, BY OCCUPATIONAL STATUS AND BY OCCUPATION

('000)

(Including contractor and sub-contractor principals actually working on jobs but excluding persons working on owner-built houses)

	N.S.W.	*Vic.*	*Qld.*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
				30 JUNE 1976					
Contractors	3.9	3.6	2.1	0.9	0.9	0.4	0.1	0.4	12.3
Sub-contractors	8.6	11.4	5.3	4.5	4.4	0.6	0.6	1.6	37.1
Wage earners	24.2	20.6	17.3	9.1	12.6	3.4	2.1	3.7	93.0
Total	*36.8*	*35.6*	*24.7*	*14.5*	*17.9*	*4.4*	*2.9*	*5.7*	*142.4*
Carpenters	11.2	11.8	9.3	3.7	3.9	1.7	1.0	1.4	43.9
Bricklayers	4.3	4.7	2.7	2.2	3.2	0.4	0.1	0.7	18.4
Painters	2.7	2.7	1.6	1.2	1.4	0.3	0.2	0.5	10.6
Electricians	2.6	2.4	1.4	0.9	1.3	0.2	0.2	0.4	9.5
Plumbers	3.3	3.6	2.1	1.3	1.5	0.4	0.2	0.4	12.9
Builders' labourers	5.0	3.9	3.0	2.0	2.2	0.7	0.6	0.8	18.2
Other	7.6	6.5	4.6	3.0	4.3	0.8	0.5	1.5	28.9
Total	*36.8*	*35.6*	*24.7*	*14.5*	*17.9*	*4.4*	*2.9*	*5.7*	*142.4*
New dwellings	14.5	18.1	12.4	8.0	10.2	2.3	1.7	2.9	70.1
Other buildings(*a*)	19.4	16.7	11.1	6.2	6.1	1.9	1.1	2.4	65.0
Repairs, maintenance(*b*)	2.9	0.8	1.2	0.3	1.6	0.2	0.1	0.3	7.4
Total	**36.8**	**35.6**	**24.7**	**14.5**	**17.9**	**4.4**	**2.9**	**5.7**	**142.4**
				30 JUNE 1977					
Contractors	3.6	3.5	2.1	0.9	1.0	0.3	0.1	0.3	11.7
Sub-contractors	7.9	10.0	5.5	4.2	5.0	0.6	0.6	1.1	34.9
Wage earners	22.6	17.7	15.0	7.5	12.6	3.6	1.6	4.1	84.6
Total	*34.1*	*31.2*	*22.6*	*12.6*	*18.6*	*4.5*	*2.2*	*5.5*	*131.2*
Carpenters	10.7	10.4	8.8	3.3	4.1	1.8	0.5	1.3	40.8
Bricklayers	3.9	4.1	2.4	1.9	3.2	0.4	0.2	0.5	16.7
Painters	2.3	2.2	1.6	1.2	1.4	0.3	0.2	0.4	9.6
Electricians	2.4	2.1	1.4	0.8	1.6	0.2	0.1	0.4	9.1
Plumbers	3.1	3.2	1.9	1.2	1.7	0.3	0.2	0.4	12.2
Builders' labourers	4.7	3.3	2.6	1.6	2.3	0.7	0.4	0.8	16.5
Other	6.9	5.7	3.9	2.6	4.3	0.8	0.5	1.7	26.4
Total	*34.1*	*31.2*	*22.6*	*12.6*	*18.6*	*4.5*	*2.2*	*5.5*	*131.2*
New dwellings	13.7	15.6	11.5	6.8	11.6	2.1	0.9	3.0	65.2
Other buildings(*a*)	17.1	14.6	9.1	5.3	5.5	2.3	1.1	2.2	57.2
Repairs, maintenance(*b*)	3.2	1.0	2.0	0.5	1.6	0.2	0.2	0.3	8.9
Total	**34.1**	**31.2**	**22.6**	**12.6**	**18.6**	**4.5**	**2.2**	**5.5**	**131.2**

(*a*) Includes persons working on alterations and additions carried out by builders on new buildings. (*b*) Carried out by builders of new buildings.

Construction (other than building)

These statistics relate to work by private contractors on construction (other than building) prime contracts valued at $100,000 or more, inclusive of all associated sub-contract work performed for the prime contractor. Alterations and additions undertaken as prime contracts valued at $100,000 or more are included in the statistics. Repairs and maintenance contracts, construction undertaken by government authorities involving their own work forces, and construction on their own account by enterprises in the private sector, are excluded.

The following table shows the value of construction (other than building) activity undertaken as prime contracts commenced, completed, under construction, work done and work yet to be done in Australia during the years 1975–76 and 1976–77.

VALUE OF CONSTRUCTION (OTHER THAN BUILDING) PRIME CONTRACTS BY OWNERSHIP
($ million)

	1975–76					*1976–77*				
	Commenced	*Completed*	*Under construction(a)*	*Work done (b)*	*Work yet to be done(a)*	*Commenced*	*Completed*	*Under construction(a)*	*Work done (b)*	*Work yet to be done(a)*
PRIVATE										
Roadwork . . .	70.6	66.6	52.9	65.0	24.2	87.8	81.9	66.4	92.8	27.5
Water supply, storage, sewerage and drainage	17.9	22.1	10.8	19.2	4.9	19.9	18.7	12.3	18.7	6.6
Electricity, oil and gas production and distribution facilities . .	23.6	26.8	86.4	62.3	25.3	24.2	24.7	96.5	40.1	18.8
Marine work . .	41.9	27.9	56.0	54.7	13.4	4.6	10.8	59.0	21.0	6.2
Heavy industrial facilities	65.7	270.7	163.2	158.5	67.1	117.9	103.4	207.3	132.3	82.8
Other(*c*) . . .	40.4	64.9	78.1	63.9	23.4	42.8	67.5	67.8	62.5	19.5
Total . . .	*260.0*	*479.0*	*447.4*	*423.7*	*158.3*	*297.1*	*306.9*	*509.3*	*367.5*	*161.3*
GOVERNMENT										
Roadwork . . .	87.5	125.4	156.7	117.2	47.3	140.7	144.0	161.2	134.3	65.6
Water supply storage, sewerage and drainage	128.6	294.3	457.2	259.3	147.0	188.3	237.1	471.3	242.4	158.7
Electricity, oil and gas production and distribution facilities . .	307.6	89.1	879.0	236.9	463.2	180.6	231.0	958.1	269.2	504.1
Marine work . .	17.9	52.3	74.0	47.6	19.0	109.7	25.9	160.3	45.2	86.0
Heavy industrial facilities	3.7	3.5	7.0	4.6	5.0	11.9	0.6	17.4	8.4	7.9
Other(*c*) . . .	141.9	85.1	308.4	136.0	162.2	103.9	93.1	351.9	166.8	131.9
Total . . .	*687.0*	*649.8*	*1,882.2*	*801.6*	*843.7*	*735.0*	*731.8*	*2,120.2*	*866.5*	*954.3*
TOTAL										
Roadwork . . .	158.1	191.9	209.6	182.2	71.5	228.4	226.0	227.6	227.1	93.1
Water supply, storage, sewerage and drainage	146.5	316.4	468.0	278.5	151.9	208.2	255.8	483.6	261.2	165.3
Electricity, oil and gas production and distribution facilities . .	331.1	115.9	965.4	299.2	488.5	204.8	255.6	1,054.6	309.3	523.0
Marine work . .	59.8	80.2	129.9	102.3	32.4	114.3	36.7	219.4	66.2	92.2
Heavy industrial facilities	69.5	274.2	170.2	163.1	72.1	129.8	104.0	224.7	140.7	90.6
Other(*c*) . . .	182.1	150.0	386.5	199.9	185.6	146.7	160.6	419.7	229.4	151.4
Total . . .	**947.0**	**1,128.7**	**2,329.7**	**1,225.3**	**1,002.0**	**1,032.2**	**1,038.7**	**2,629.5**	**1,233.9**	**1,115.7**

(*a*) At end of period. (*b*) During period. (*c*) Comprises Bridges, Aerodromes, Railways, Telecommunications and Miscellaneous.

More detailed information on building activity is contained in *Building and Construction* (8701.0) (final issue 1971–72) and *Building Statistics* (quarterly) (8705.0). Current information is obtainable also in the *Monthly Review of Business Statistics* (1304.0), the *Digest of Current Economic Statistics* (monthly) (1305.0), and the mimeographed statements *Building Statistics: Number of Dwellings* (quarterly) (8703.0), *Building Operations, Preliminary* (quarterly) (8704.0), *Building Approvals* (monthly) (8702.0) and *Construction (other than building) Operations* (quarterly) (8708.0). Details for particular States are available from publications issued regularly by the Deputy Commonwealth Statistician in each State. The *Building Industry Quarterly* published by the Department of Environment, Housing and Community Development contains further information on current trends in housing activity.

The annual reports of the Commonwealth and State Government Housing Authorities show further details of government activities in the field of housing.

CHAPTER 20

TRANSPORT AND COMMUNICATION

The statistics in this chapter relate in the main to the year 1975–76, with comparisons restricted to a few recent years. The chapter contains information on shipping; railways; tram, bus and ferry services; journeys to work and to school; motor vehicles; road traffic accidents; roads and bridges; air transport; postal services; internal and overseas telecommunication services; radio communication stations; broadcasting and television; and government bodies concerned with these activities.

More detailed figures and particulars for earlier years are included in the publications listed at the end of the chapter.

THE AUSTRALIAN TRANSPORT ADVISORY COUNCIL

In April 1946, the State and Commonwealth Governments agreed to establish a co-ordinating and advisory committee at Ministerial level to review annually the various laws and regulations deemed necessary to safeguard the interests of the State Governments and road users generally and to consider matters of transport policy.

The Australian Transport Advisory Council (ATAC), thus established, is comprised of the Commonwealth Ministers for Transport, Capital Territory, Northern Territory, and each State Minister with transport responsibilities. The New Zealand Minister of Transport, Civil Aviation and Railways, and the Northern Territory Cabinet Member for Transport and Industry attend as observers.

The council primarily considers policy matters relating to transport operations, co-ordination and developments. Its functions are: to initiate discussion and report to the respective Governments as necessary on any matter raised by the Council or any State or Commonwealth Government Authority; generally to exercise its purely advisory functions and to report as necessary to the respective Governments concerned on any matter which will tend to promote a better co-ordination of transport development, while at the same time encouraging modernisation and innovation to meet changing needs; and to assist in maintaining continuous and comprehensive research in relation to transport development in Australia and abroad, such research to be carried out for the benefit of Australian Transport authorities and agencies.

The regulation of and the executive responsibility for transport is shared between the Commonwealth and State Governments. ATAC is the meeting ground at a ministerial level and provides an effective means for inviting discussion and reaching uniformity of approach towards transport administrative procedures and policy. It also provides a means for reviewing and discussing national solutions of transport problems and the rectification of transport deficiencies generally. The Council has been active in: the establishment of special committees and conferences to examine and report on specific problems such as road safety, motor vehicle standards and safety features, motor vehicle emissions, transport economic research, and highway planning; the exchange of views and the formulation of common policies on a wide range of transport matters; the effecting, at ministerial level, of Commonwealth State and interstate co-operation on such matters as urban transport arrangements and funding, provision of funds for roads, construction and operation of interstate railway links, collecting of fines and fees interstate, policing of regulations etc., and the publication of comprehensive surveys of Australian transport.

The Bureau of Transport Economics

This Bureau, which from June 1977 incorporated the functions of the former Commonwealth Bureau of Roads, undertakes research and analysis to assist the Commonwealth Government in the formulation and development of policy aimed at the efficient allocation of resources in the transport field. This work covers all transport activities and includes the provision of advice on the level of funding for road investment as well as matters relating to the reduction of transport costs and the rational planning of future transport facilities. For administrative purposes the Bureau is attached to the Department of Transport, but it is responsible to the Minister for Transport for the conduct of its studies and investigations.

SHIPPING

Control of shipping

Commonwealth Government navigation and shipping legislation

For an outline of the development and scope of Commonwealth Government legislation, *see* Year Book No. 55, pages 366–7.

Commonwealth Government Acts concerned with shipping are: the *Navigation Act* 1912, the *Sea Carriage of Goods Act* 1924, the *Seamen's Compensation Act* 1911, the *Seamen's War Pensions and Allowances Act* 1940, the *Pollution of the Sea by Oil Act* 1960, the *Pollution (Shipping Levy) Act* 1972, the *Pollution (Shipping Levy Collection) Act* 1972, the *Australian Shipping Commission Act* 1956, the *Stevedoring Industry Act* 1956, the *Beaches, Fishing Grounds and Sea Routes Protection Act* 1932, the *Submarine Cables and Pipelines Protection Act* 1963, the *Lighthouses Act* 1911, the *Explosives Act* 1961, the *Inter-State Commission Act* 1975, the *King Island Harbour Agreement Act* 1973, the *King Island Shipping Service Agreement Act* 1974 and the *Ship Construction Bounty Act* 1975.

Navigation Act 1912 as Amended

One of the largest Commonwealth Acts, the *Navigation Act*, with forty-four sets of Regulations made under it, provides for various regulatory controls over ships and their crews, passengers and cargoes, mainly in connection with the ensuring of the safety of the ship and the preservation of life at sea. Substantial penalties are provided for serious offences. In particular, it gives effect to the important international conventions produced under the aegis of the Inter-Government Maritime Consultative Organisation (IMCO) dealing with safety of life at sea, ships' load lines and prevention of collisions.

Taken in the order in which they appear in the Act, the main substantive matters dealt with are as follows:

Masters and seamen. Some sections deal with the examination of masters, mates and engineers for certificates of competency. Other sections ensure that appropriate conditions apply to crews serving on ships by providing for the supervision of the engagement, discharge and payment of wages; discipline at sea; the settlement of wages and other disputes; the return to their home port of distressed seamen; taking charge of wages and effects of deceased seamen and of those who have deserted or been left behind; and enquiries into deaths at sea. These matters are administered by Mercantile Marine Offices established at numerous ports. The health of seamen is cared for by the prescription of scales of medicines and medical stores to be carried by ships, and there are provisions to give effect to International Labour Organisation Convention requirements for the accommodation of crews. Plans for new or altered accommodation in ships have to be approved by a Crew Accommodation Committee.

There are requirements for the manning of ships, designed to ensure that sufficient officers and men are carried for safety and operational purposes. Manning disputes are dealt with by a statutory Committee of Advice. The Act provides for a Marine Council to advise the Minister on the suitability of persons for engagement as seamen.

Ships and shipping. There are particularly important provisions dealing with ship safety in such matters as survey of ships, load lines, life-saving and fire appliances, prevention of collisions, and carriage of potentially dangerous cargoes. Whilst in Australia, all ships come under the survey provisions of the *Navigation Act* and require certificates issued by the Department of Transport unless they are registered in a country which is a party to the Convention concerned and hold valid certificates issued by their Governments and conforming to the requirements of the Safety of Life at Sea and Load Lines Conventions. There is power to detain any ship the condition of which does not conform with the conditions set out in its certificate or which appears to be overloaded or otherwise unseaworthy.

Passengers. These provisions deal with matters necessary or convenient for regulating the carriage of passengers in respect of such matters as numbers that may be carried, accommodation and health aspects.

Coasting trade. Under the coastal trade provisions of the *Navigation Act*, the Australian coastal trade is reserved for licensed vessels, i.e. those which comply with Australian standards of manning, accommodation, and award conditions and wages. The Act does not restrict the class of ships which may obtain a licence. It is open to any vessel irrespective of the registry to obtain a licence on compliance with these conditions and to operate in the Australian coastal trade subject to approval being given for the importation of the vessel where necessary.

Provision exists for unlicensed vessels to operate in the coast trade under single voyage permits in certain circumstances where licensed vessels are not available or are inadequate to meet the needs of the trade. Strict control is exercised over the issue of permits for the carriage of coastal cargoes.

Wrecks and salvage. There are provisions in relation to wrecks and salvage, covering preservation of life and of the wreck and its cargo and related matters.

Prevention, etc., of pollution by oil of the Australian coast, coastal waters and reefs. Under these provisions, where oil is escaping, or likely to escape, from a ship, the Minister is empowered to take action to prevent or reduce pollution of the area.

Courts of Marine Inquiry. There are provisions for the holding of Courts of Marine Inquiry to investigate the circumstances attending any casualties to ships that come within Commonwealth legislative authority, usually following a preliminary investigation. Such courts are provided with power to examine all the circumstances and to deal with the certificates of ships' officers found to have been at fault.

The last amending *Navigation Act* was passed in 1972. It was mainly for the purpose of inserting provisions dealing with the tonnage measurements of ships.

Australian Shipping Commission

The Commission was established by the *Australian Coastal Shipping Commission Act* 1956. The Commission's role has been to establish, maintain and operate interstate, overseas and territorial shipping services. In October 1974, when the Act was amended, the title was changed to the Australian Shipping Commission to reflect the increasing importance of overseas trading activities.

As at 30 June 1977 the Commission, operating as the Australian National Line, owned and/or operated a fleet of thirty-four vessels. The fleet includes ten vessels engaged in overseas trading: five vehicle deck cargo ships—*Australian Emblem* 23,481 tonnes deadweight, *Australian Escort* 23,481 tonnes deadweight, *Australian Enterprise* 14,364 tonnes deadweight, *Australian Explorer* 14,206 tonnes deadweight and *Allunga* 20,601 tonnes deadweight; three cellular container ships—*Australian Endeavour* 26,948 tonnes deadweight, *Australian Venture* 39,454 tonnes deadweight and *Australian Exporter* 26,650 tonnes deadweight; and two ore/bulk carriers—*Australian Pioneer* 122,600 tonnes deadweight and *Australian Prospector* 139,346 tonnes deadweight. The coastal fleet of twenty-four vessels includes one vehicle deck passenger ship —*Empress of Australia* 2,736 tonnes deadweight; seven vehicle deck cargo ships totalling 44,505 tonnes deadweight; one container/bulkship of 12,140 tonnes deadweight in the Darwin trade; two bulk carriers in the 100,000 tonnes deadweight class; four bulk carriers in the 50–100,000 tonnes deadweight class; eight other bulk carriers each less than 50,000 tonnes deadweight totalling 95,632 tonnes deadweight; and one grain carrier 2,054 tonnes deadweight.

The Line has two 27,000 tonnes deadweight bulk carriers under construction in an Australian yard; and one 122,000 tonnes deadweight, one 139,000 tonnes deadweight and four 15,900 tonnes deadweight bulk carriers, and one 15,500 tonnes deadweight vehicle deck vessel under construction in overseas yards.

The Line operates specialised terminals at Adelaide, Melbourne, Burnie, Devonport, Bell Bay, Sydney, Port Kembla, Brisbane, Rockhampton (Port Alma), Mackay, Townsville, Cairns and Darwin.

The vehicular passenger ships *Empress of Australia* and *Australian Trader* carried 131,199 passengers between the mainland and Tasmania in the year ended 30 June 1976. In the year ended 30 June 1977, the *Empress of Australia* carried 112,063 passengers between Melbourne and Devonport. During the same periods, 11.9 and 12.9 million tonnes of cargo respectively were carried by Australian National Line vessels.

Australian Shipbuilding Board

Advice to the Minister on the shipbuilding industry, including recommendations on bounty for each particular shipbuilding proposal, is provided by the Australian Shipbuilding Board. This Board has a membership of six including a representative from each of the Department of Defence (Navy Office) and the trade union movement.

To 31 December 1977, 355 vessels valued at approximately $788 million had been completed by Australian shipyards. Seventy-seven of those vessels (ranging from customs launches to survey and research vessels, landing craft and lighthouse supply vessels) were built for the Commonwealth Government. The remaining 278 were built under a Commonwealth subsidy scheme for other ship owners, including the Australian National Line.

Three major Australian shipyards are building merchant vessels one in South Australia, and two in New South Wales; two other shipyards are engaged principally in naval shipbuilding one in New South Wales and one in Victoria. There are numerous smaller yards building fishing vessels and other small craft and many builders of wooden commercial and pleasure boats.

Shipbuilding Assistance

The shipbuilding industry in Australia has been given Government assistance since the introduction of the shipbuilding subsidy scheme in 1947. The level of maximum subsidy has been determined by the Government on the basis of inquiries into the industry by the former Tariff Board, now the Industries Assistance Commission. These inquiries have been held in 1954, 1959, 1963, 1971 and 1976. The Commission, in 1978, has a reference under inquiry covering the construction of vessels under 6,000 tons gross.

Present policy is given effect by the *Ship Construction Bounty Act* 1975. Assistance is by way of a bounty at a fixed percentage dependent upon the size of the vessel and, for maximum bounty, the date upon which construction was commenced in the shipyard. This rate is applied to the lowest acceptable Australian tender received as a result of public calling of tenders with appropriate deductions applied for items ineligible for bounty. Under the policy Australian owners may seek approval to import ships when overseas prices are less than the bounty-paid Australian price.

Vessels eligible for the bounty are fishing vessels of 21 metres length and longer and other vessels of 150 gross construction tons and above. For the smaller vessels, bounty is at 25 per cent, rising at 2½ per cent per 1,000 tons gross to the maximum which, in 1978, is 31 per cent. This diminishes to a long-term rate of 25 per cent for vessels commenced in 1981. The administration of the policy on shipbuilding assistance is the responsibility of the Minister for Industry and Commerce.

Australian Stevedoring Industry Authority

Following extensive consultations with parties directly involved in the Australian stevedoring industry, a National Stevedoring Industry Conference was established to consider the development of a framework within which parties directly involved in the industry could be given greater responsibility in the industry's affairs. In April 1977 a report of the National Stevedoring Industry Conference was presented and, as a consequence, legislation was developed to provide for: termination of the operation of the Australian Stevedoring Industry Authority; alternative means for dealing with industry funding arrangements; and measures designed to improve the operational and industrial relations aspects of the industry. Legislation was introduced into the Parliament during November 1977 and becomes operative from a date to be proclaimed.

An important part of the proposed new arrangements is the establishment of a Stevedoring Industry Consultative Council which would be under the chairmanship of a Government appointee and draw its membership from all major organisations concerned with stevedoring.

The legislation provides for the establishment of a federal co-ordinating committee comprising representatives of both the employers and the Waterside Workers' Federation to oversee the implementation and operation of arrangements agreed to in the National Stevedoring Industry Conference. In each port a Port Co-ordinating Committee is to be established to implement the arrangements at the local level.

Legislation will also provide for the establishment of the National Stevedoring Industry Finance Committee to oversee the disbursement of funds collected for employers by various statutory levies. The statutory provisions relating to the industry are contained in the *Stevedoring Industry Acts* (*Termination*) *Act* 1977; the *Stevedoring Industry Charge* (*Termination*) *Act* 1977; the *Stevedoring Industry Finance Committee Act* 1977; the *Stevedoring Industries Levy Act* 1977; the *Stevedoring Industry Levy Collection Act* 1977; and the *Port Statistics Act* 1977.

Commission of Inquiry into Transport to and from Tasmania

The Commission was established in April 1974 to inquire into, and report upon, the following matters:

- the existence and extent of any differences between the levels of charges for the transport of persons and goods between places in Tasmania and places on the mainland of Australia and the levels of charges for the transport of persons and goods between places on the mainland of Australia;
- the main cause of any such differences;
- the effects of any such differences on particular industries in Tasmania and on the possible intention to extend existing industries and develop new industries in Tasmania; and
- any measures that might be taken to reduce or eliminate any such differences that have an adverse effect for Tasmania, being measures to improve efficiency in respect of shipping, port utilisation, the organisation of freight forwarding, and other relevant matters, with a view to reducing transport costs.

The Commission of Inquiry was directed to make such recommendations arising out of the inquiries into the above matters as it considered appropriate.

Following presentation of the Report of Commissioner Mr J. F. Nimmo, C.B.E. to the Government on 5 March 1976, the Minister for Transport announced the adoption of those aspects of the Commissioner's recommendations concerning financial assistance to Tasmanian shippers who suffer a cost disability in the movement of certain non-bulk cargoes by sea between Tasmania and the mainland.

The Commonwealth Department of Transport was made responsible for the management of an arrangement to be known as the Tasmanian Freight Equalisation Scheme (TFES). The northbound component of the scheme was introduced in July 1976 and the southbound component in July 1977.

Trade Practices Act 1974 (Part X—Overseas Cargo Shipping)

The Overseas Cargo Shipping provisions of the Trade Practices Act are administered by the Minister for Transport.

The principal object of the Overseas Cargo Shipping provisions is the control of the operations of shipping conferences (associations into which shipowners have traditionally combined) and of individual shipowners in relation to the carriage of goods by sea from Australia to other countries. To achieve that object, the provisions are designed to facilitate negotiations between shipowners and The Australian Shippers' Council, an association designated under the Act by the Minister that represents the interests of shippers and producers of goods exported from Australia.

Regarding shipping conferences, the provisions require certain agreements of a specified character between shipowners operating in the outward trades from Australia to be filed with the Clerk of Shipping Agreements. A shipowner who is a party to such an agreement may be requested by the Minister to give him an undertaking to negotiate with the Council with regard to the arrangements for, and the terms and conditions that are applicable to, cargo shipping to which the agreement relates. Whether such a shipowner has failed so to negotiate, or whether the services provided pursuant to the agreement are adequate, efficient or economical, are the matters that may be referred by the Minister for enquiry and report by the Trade Practices Tribunal. Certain powers are vested in the Governor-General to disapprove the agreement after consideration of a report by the Tribunal to the Minister. A probable effect of such a disapproval would be to force a shipowner party to the agreement to carry on its business in the absence of any agreement with other shipowners. The Governor-General may, however, in his discretion, approve such a shipowner entering into another agreement.

Provisions similar to the provisions in respect of shipping conferences apply in respect of individual shipowners. In addition, an individual shipowner may, as a result of a declaration by the Governor-General, be prohibited from engaging in certain specified activities in carrying on his business, e.g. engaging in freight cutting with the object of substantially damaging the business of another shipowner.

The provisions also protect the rights of efficient Australian flag operators to participate to a reasonable extent in overseas cargo shipping.

Review of Australia's Overseas Cargo Shipping Legislation

On 17 March 1977 the Minister for Transport announced the establishment of a study group to review Australia's overseas cargo shipping legislation and report within six months.

The review covered the operation of Part X of the Trade Practices Act, possible future legislative arrangements and the role and long-term financing of the Australian Shippers' Council.

The recommendations of the report are being considered by the Government.

Maritime Industry Commission of Inquiry

For details *see* Year Book No. 61, pages 370–1.

Collection and presentation of statistics

Basic documents

From 1 July 1966 shipping statistics have been compiled by the Australian Bureau of Statistics from returns submitted by shipping companies or their representatives to Customs Houses at the various seaports throughout Australia. A return is required for the departure of a vessel from a port as well as for its arrival at that port.

Scope of the statistics

Arrivals and departures of vessels are treated separately in shipping statistics. Not all vessels are included in the statistics, as returns are not required for (i) naval vessels; (ii) yachts and other craft used for pleasure; (iii) foreign fishing vessels that neither load nor discharge cargo; (iv) Australian registered fishing vessels operating from Australian ports; (v) geographical survey vessels, seismic survey vessels, oceanographic survey vessels; (vi) offshore oil drilling rigs and vessels servicing them; (vii) vessels of 200 registered net tons and under.

Period covered by the statistics

Monthly shipping statistics relate to vessels arriving at and departing from each port in a calendar month. Annual statistics are published on a financial year basis.

Statistics of vessels

Statistics of vessels are compiled in terms of registered net tonnages. Net tonnage is expressed in units of 100 cubic feet (i.e. 100 cu ft equals 1 ton) and represents the volume of enclosed space which can be utilised for cargo or passengers.

Statistics of vessel movements

Returns show the last or next port of call of a vessel according to whether an arrival or departure at a port is being reported. Each vessel is classified to either the overseas or the coastal fleets serving Australia. This information, supplemented by the voyage of the vessel indicated by ports it visits to load or discharge cargo, is the basis on which each vessel movement is allocated to one of the following classifications: overseas direct; overseas via other States; overseas via ports in the same State; interstate direct; interstate via ports in the same State; intrastate.

Cargo loaded or discharged

Returns for arrivals show cargo discharged, and for departures cargo loaded, in terms of tonnes or cubic metres, depending on the basis on which freight is charged.

Type of service

Overseas shipping cargo statistics are classified by type of service. Coastal shipping cargo statistics, on the other hand, combine all service types.

For overseas shipping, cargo shipped in liners is shown separately from cargo shipped in tramps, bulkships and tankers. A liner is a vessel which, on the voyage on which cargo is loaded or discharged at an Australian port, is operated to provide services on a specified route on a relatively regular basis.

Statistics of cargo shipped in liner services do not necessarily provide a measure of cargo carried by ships operating under shipping conference arrangements. For example, liner services may be provided by shipping companies which are not parties to conference agreements. Cargo may also be shipped under shipping conference conditions in vessels operating on a voyage charter basis for specific cargo and, in the statistics, such cargo is classified as cargo shipped in tramp vessels.

Country of loading or discharge of overseas cargo

In statistics of overseas shipping cargo, country of loading or discharge of cargo is the country of location of the port where the cargo was loaded on to, or is to be discharged from, a reporting vessel. The countries shown are not necessarily the countries of origin or ultimate destination of cargo because previous or subsequent transhipments of cargo are not taken into account. The statistics of cargo classified by the country in which it was loaded or discharged cannot therefore be compared directly with statistics of overseas trade classified by country of origin or consignment.

Transhipments of cargo within Australia

The State of loading or discharge shown in the statistics is the State in which cargo is loaded onto, or discharged from, reporting vessels. Cargo loaded in a given State can therefore include cargo previously shipped interstate, while cargo discharged can include cargo which would subsequently be shipped interstate.

Units of measurement

Deadweight tonnage. A measure of the total mass (weight) of cargo, fuel, potable water, boiler feed water, ballast, stores, crew and their gear, etc. It is equal to loaded displacement tonnage less light displacement tonnage.

Gross tonnage. A measure of the enclosed internal volume of a ship and its superstructure, with certain spaces exempted. It is also an indicator of the total volumetric size of a ship.

Net tonnage. A volumetric measure consisting of the gross tonnage less the volume of non-earning spaces, e.g. master's cabin, crew accommodation, wheelhouse, galley, etc., and an allowance for machinery spaces. Volumetric measurement of ships has not yet been converted to metric.

Overseas shipping

The following table shows the number of vessels entered and cleared direct from and to overseas countries, and the aggregate net tonnage involved, for the years 1971–72 to 1975–76.

OVERSEAS SHIPPING(*a*): VESSELS ENTERED AND CLEARED

		1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Entered	number	5,439	5,647	5,975	6,230	5,772
	'000 net tons	53,144	62,628	72,042	80,313	75,002
Cleared	number	5,447	5,631	5,909	6,254	5,824
	'000 net tons	53,491	62,031	71,462	80,305	75,399

(*a*) Excludes vessels of 200 net tons and under.

Particulars of the total overseas movement of shipping for each year from 1822 to 1920-21 were published in Year Book No. 15, page 507 and those for each year from 1921–22 to 1950–51 were published in Year Book No. 40, page 97. Those for each year from 1947–48 are shown in the Statistical Summary of this Year Book.

The following table shows, for each State and the Northern Territory, the number of vessels entered and cleared direct from and to overseas countries, and the aggregate net tonnage involved.

OVERSEAS SHIPPING(*a*): VESSELS ENTERED AND CLEARED, STATES, 1975-76

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
Entered	number	1,405	647	1,052	294	2,019	163	192	5,772
	'000 net tons	14,279	4,970	13,072	2,539	35,730	2,457	1,956	75,002
Cleared	number	1,187	587	1,266	334	2,130	137	183	5,824
	'000 net tons	12,614	4,599	14,968	2,412	36,377	2,241	2,188	75,399

(*a*) Excludes vessels of 200 net tons and under.

The following table shows particulars of overseas shipping which entered Australian ports according to country of registration of vessels.

OVERSEAS SHIPPING: VESSELS ENTERED DIRECT, BY COUNTRY OF REGISTRATION, AUSTRALIA(*a*)

('000 net tons)

Country of registration of vessels	*1973–74*	*1974–75*	*1975–76*
Australia	331	398	512
Denmark	884	1,022	374
France	171	124	338
Germany, Federal Republic of	2,377	2,575	1,932
Greece	4,957	4,248	4,156
Hong Kong	229	345	922
India	1,496	1,548	1,034
Italy	913	978	722
Japan	20,751	22,904	24,080
Liberia	10,077	11,876	12,129
Netherlands	1,181	1,218	798
New Zealand	363	289	198
Norway	8,130	7,909	5,159
Panama	2,235	3,189	3,358
Singapore, Republic of	788	991	1,229
Sweden	1,423	1,506	1,053
United Kingdom	10,828	12,263	9,938
United States of America	618	860	623
U.S.S.R.	572	795	1,369
Other countries	3,718	5,275	5,078
All countries—			
In cargo	19,558	19,764	18,089
Proportion of total %	27.1	24.6	24.1
In ballast	52,484	60,549	56,913
Proportion of total %	72.9	75.4	75.9
Grand Total	**72,042**	**80,313**	**75,002**

(*a*) Excludes vessels of 200 net tons and under.

Australian registered tonnage which entered Australian ports from overseas during the year 1975–76 represented 0.68 per cent of the total tonnage entered.

Interstate shipping

Interstate movement

Interstate direct. The following table shows the number of coastal vessels entered and the net tonnage recorded into each State and the Northern Territory from any other State during 1975-76. Total interstate movements by coastal and overseas vessels are shown in *Total interstate movements* below.

INTERSTATE MOVEMENT: COASTAL VESSELS ENTERED INTERSTATE DIRECT 1975-76(*a*)

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
Number of vessels . . .		883	1,122	310	380	196	1,033	91	4,015
Net tonnage . .	'000 tons	6,453	6,276	2,316	2,029	2,567	2,903	300	22,845

(*a*) Excludes vessels of 200 net tons and under.

Overseas via States. The figures in the following table show the number and aggregate net tonnage of overseas vessels entered and cleared which, having arrived at an Australian port direct from an overseas port, continued their voyages from/to overseas countries via other Australian States.

INTERSTATE MOVEMENT: OVERSEAS VESSELS ENTERED AND CLEARED VIA OTHER AUSTRALIAN STATES, 1975-76(*a*)

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
Entered . . .	number	1,200	1,307	699	545	407	340	46	4,544
	'000 net tons	8,558	8,266	4,928	3,190	3,491	1,373	534	30,340
Cleared . . .	number	1,437	1,350	492	512	304	372	56	4,523
	'000 net tons	10,486	8,567	3,093	3,285	3,005	1,581	344	30,361

(*a*) Excludes vessels of 200 net tons and under.

Total interstate movements. The following table shows, for each State and the Northern Territory, the total number of vessels entered from and cleared for other States during the year 1975-76, together with the aggregate net tonnage. Total interstate movement includes details of vessels entered or cleared interstate direct, interstate via ports in the same State and overseas via other States.

INTERSTATE MOVEMENT: TOTAL VESSELS ENTERED AND CLEARED, STATES AND NORTHERN TERRITORY, 1975-76(*a*)

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
Entered . . .	number	2,155	2,438	1,219	983	658	1,464	146	9,063
	'000 net tons	15,644	14,633	7,926	5,647	6,261	4,712	878	55,701
Cleared . . .	number	2,359	2,503	984	903	609	1,478	156	8,992
	'000 net tons	17,044	15,147	5,913	5,357	6,094	4,702	678	54,935

(*a*) Excludes vessels of 200 net tons and under.

Australian trading vessels

The following table shows particulars of all Australian trading vessels of 200 gross tons or more engaged in the regular overseas, interstate or intrastate services at 30 June 1977.

AUSTRALIAN TRADING VESSELS OF 200 GROSS TONS OR MORE
30 JUNE 1977

(*Source:* Department of Transport)

Vessels	*Number*	*Deadweight tonnes*	*Gross tons*
Interstate vessels—			
Australian-owned, Australian-registered	54	870,445	584,047
Overseas-owned, Australian-registered, engaged in Australian coastal trade—			
New Zealand-owned	2	11,056	8,362
Other	5	147,116	94,044
Australian-owned, overseas-registered	1	41,563	23,811
Overseas-owned, overseas-registered, on charter, engaged in Australian coastal trade	12	687,640	375,661
Total interstate vessels	74	1,757,820	1,085,925
Intrastate vessels	19	311,888	194,472
Total coastal trading vessels	*93*	*2,069,708*	*1,280,397*
Overseas trading vessels—			
Australian-registered	12	477,880	321,311
Overseas-registered	7	173,297	115,660
Total overseas trading vessels	*19*	*651,177*	*436,971*
Total Australian trading vessels	**112**	**2,720,885**	**1,717,368**

Harbour boards and trusts

New South Wales

The Maritime Services Board of New South Wales exercises general control over intra-state shipping, including the survey and certification of vessels, the licensing of harbour craft and the examination and issue of certificates to officers. It is responsible for the provision of pilotage services, lights, beacons, buoys and other port facilities; the imposition and collection of rates and charges on goods and vessels; and the general control and management of the navigable waters and ports within the State. At the ports of Sydney, Newcastle and Botany Bay the Board is also responsible for the provision of adequate wharfage and channels and the carrying out of all construction, maintenance and dredging work. Since 1 February 1936 the State enactments on port charges, including the Navigation Act of New South Wales, the Harbour and Tonnage Rates Act and the Sydney Harbour Trust Act, have been administered by the Maritime Services Board.

The activities of the Maritime Services Board are financed through the Consolidated Revenue Fund and the Maritime Services Fund. Revenue and expenditure in connection with pilotage and navigation services and the administration and collection of fees at Port Kembla and the other smaller ports form part of the Consolidated Revenue Fund of the State Government. Revenue and expenditure for the year 1975–76 was $14,357,000 and $6,722,000 respectively. The Maritime Services Fund is credited with all revenue earned at the Ports of Sydney, Newcastle, and Botany Bay with the exception of that derived from pilotage and navigation services. All expenditure on the administration and maintenance of these ports is met by this Fund.

Financial details relating to the Maritime Services Fund are shown in the following table.

MARITIME SERVICES BOARD FUND: FINANCES OF THE PORTS OF SYDNEY, NEWCASTLE AND BOTANY BAY

($'000)

		Revenue		Expenditure			
Year	*Capital debt at 30 June*	*Wharfage and tonnage rates*	*Total*	*Working expenses (a)*	*Interest debt redemption exchange, etc.*	*Total*	*Surplus (+) or deficit (−)*
1971-72 . .	93,620	19,406	30,371	23,857	6,459	30,316	+55
1972-73 . .	103,341	18,601	29,201	23,134	6,969	30,103	−902
1973-74 . .	110,423	24,225	40,591	32,403	7,755	40,158	+433
1974-75 . .	112,263	25,670	46,764	37,979	8,485	46,464	+301
1975-76 . .	115,729	28,582	49,311	39,822	9,416	49,238	+73

(*a*) Includes provisions for renewals, long-service leave, etc.

Port of Sydney. The wharves are situated close to the business centre of the city, about 6 or 8 kilometres from the Heads. At 30 June 1976 there were five dolphin berths 1,020 metres long, and seventy-six effective commercial cargo berths with a total length of 13,500 metres controlled by the Board. Accommodation for harbour craft amounts to 1,500 metres, while the length of other berths, including oil and private wharves, totals 4,500 metres. Depth of water at wharves is up to 13 metres. Special facilities for the storage and handling of products such as wheat, wool, coal, etc. are provided. Docking facilities are available for large vessels at the Captain Cook Graving Dock. Container facilities became available in March 1969 with the opening of the eastern section of the Balmain container terminals to cellular container vessels.

Port of Newcastle. Shipping at Newcastle is concerned primarily with the coal, iron and steel and other heavy industries located in the district. However, facilities are available for the shipment of wool, wheat and frozen meat, and a wharf is available for timber.

Botany Bay. The port is primarily a discharging centre for the oil refinery at Kurnell, near Sydney. One jetty with a tanker berth each side of the jetty is available, as well as three tanker offshore moorings with submarine pipelines.

Port Kembla. This is the port of the southern coalfields and the major industrial areas in and about Wollongong.

Other ports. In addition to the ports of Sydney, Newcastle, Botany Bay and Port Kembla, the Board controls twenty-nine outports along the coastline of 1,900 kilometres. The shipping trade of these outports is relatively small.

Victoria

Port of Melbourne. This comes under the control of the Melbourne Harbour Trust Commissioners, a financially independent statutory organisation with a full-time chairman and five part-time commissioners.

During the past ten years, the advanced methods of cargo handling, which have developed with the advent of container unit load and roll-on roll-off vessels now entering the Port, have required an expenditure in excess of $60 million on capital works. The current capital value of the Port of Melbourne is more than $120 million.

The Port covers an area of 27 square kilometres and provides 19 kilometres of berthage, with ninety-two commercial berths. The main container complex, Swanson Dock, has four berths. Constructed at a cost of $20 million and taking some six years to complete, this thirty-six hectares complex handled 4.2 million tonnes of containerised cargo in 1975–76.

Currently, the Port of Melbourne has seven roll-on roll-off berths. The Webb Dock area, the Port's busiest roll-on roll-off complex, was originally a ferry berth (constructed in 1959) with a two hectares back-up area. It has now been developed into a four berth complex, with a back-up area of 8 hectares. During 1975-76 Webb Dock handled 1.9 million tonnes of cargo.

The depth of water (low water ordinary spring tide) from the main channels to the principal wharves is 9.4 to 12.2 metres.

The following table shows particulars of the financial operations of the Trust.

MELBOURNE HARBOR TRUST: FINANCES
($'000)

		Revenue		Expenditure				
Year	*Gross loan indebtedness at 31 December*	*Wharfage and tonnage rates*	*Total*	*Operation, administration and maintenance*	*Interest, debt redemption, exchange, etc.*	*General reserve, depreciation, renewals and insurance account*	*Total*	*Surplus(+) or Deficit(−)*
1972 . .	45,644	9,398	15,478	10,569	2,506	2,867	15,942	−464
1973(*a*) . .	(*b*)	5,485	8,777	5,368	1,298	1,930	8,596	+181
1973–74. .	48,051	12,702	21,338	11,451	2,820	3,818	18,089	+3,249
1974–75. .	51,060	14,124	24,156	14,461	3,141	4,648	22,250	+1,906
1975–76. .	56,018	18,192	27,918	15,489	3,716	5,174	24,379	+3,539

(*a*) From January 1973 the Trust's accounting period has been changed from a calendar year to a fiscal year. (*b*) Gross loan indebtedness at 30 June 1973 was $46,201,000.

Port of Geelong. This is operated by the Geelong Harbour Trust and has available nineteen effective berths, plus two berths at the Explosives Pier, Point Wilson owned and operated by the Commonwealth Government. Two modern dry bulk berths (Lascelles Wharf Nos 1 and 2 berths) became fully operational in 1970 and a roll-on roll-off berth at Corio Quay came into operation in January 1971.

Port of Portland. Development projects currently in hand will provide the port with facilities necessary to handle fully laden carriers up to 71,000 tonnes deadweight. In the first instance, No. 1 berth and its approaches are being dredged from 11 metres to 12 metres low water and the bulk grain gallery extended to the outer limits of the K. S. Anderson wharf. Trade handled during 1975-76 amounted to 644,835 tonnes; operating revenue was $1,459,180.

Queensland

The ports of Queensland generally are administered by harbour boards with members representing the cities, town and districts served by the ports. The ports of *Bowen*, *Bundaberg*, *Cairns*, *Gladstone*, *Mackay*, *Rockhampton* and *Townsville* are administered by Boards. Where no board is established, control is exercised by the Department of Tourism and Marine Services. The principal ports controlled by the Department are *Brisbane*, *Hay Point*, *Lucinda*, *Maryborough*, *Mourilyan*, *Thursday Island* and *Weipa*.

Brisbane. This, the busiest port in the State, is a river port of world standard dredged to a depth sufficient to accommodate most classes of vessels. The port provides wharves for containers, bulk grain, fertiliser, freezer goods, petroleum products and general cargo. Ship repair facilities include a dry dock accommodating vessels up to 85,000 tonnes deadweight. Two refineries, situated at the mouth of the river, can supply all ships' bunkering requirements.

The finances of Brisbane Harbour for the years 1971–72 to 1975–76 are shown in the following table.

BRISBANE HARBOUR: FINANCES
($'000)

		Receipts		Payments	
Year	*Loan indebtedness at 30 June*	*Harbour dues*	*Total*	*Working expenses(a)*	*Total*
1971–72 . .	6,352	3,001	4,349	3,308	3,789
1972–73 . .	6,653	3,010	5,586	3,700	4,228
1973–74 . .	6,866	3,265	6,451	4,308	4,862
1974–75 . .	7,482	3,490	7,940	5,380	5,989
1975–76 . .	8,428	3,929	6,220	6,288	7,003

(*a*) Excludes interest and redemption included in total.

Because of the demand for port facilities with greater depth, a port of Brisbane study recommended that a new port should be developed at Fisherman Island, at the mouth of the Brisbane River, to provide a more modern shipping service including container and roll-on roll-off shipping. Design work has been completed for access roads, railways and bridges. The Port of Brisbane Authority was established on 6 December 1976 to administer the port.

South Australia

Department of Marine and Harbors. All South Australian harbours are controlled by the Department of Marine and Harbors, which is responsible to the Minister of Marine for the discharge of its duties and functions. The most important ports are the seven deep-sea ports of *Port Adelaide*, *Port Pirie*, *Port Augusta*, *Wallaroo*, *Port Lincoln*, *Port Giles* and *Thevenard*. In South Australia there are also six privately-owned and operated ports. The principal of these are *Whyalla*, *Ardrossan*, *Rapid Bay*, *Proper Bay* (Broken Hill Pty Co. Ltd), and *Port Stanvac* (Petroleum Refineries (Aust.) Pty Ltd). Maximum depths of water (low water) at the wharves of the main ports range from 6.1 metres at Port Augusta to 15.0 metres at Port Lincoln. The following tables shows the finances of the Department for 1972–73 to 1976–77.

DEPARTMENT OF MARINE AND HARBORS, SOUTH AUSTRALIA: FINANCES
($'000)

Year	Loan indebtedness at 30 June	Revenue	Expenditure from revenue			Surplus(+ or Deficit(−)
			Working expenses	Interest	Total	
1972–73 . . .	62,655	7,324	5,453	3,028	8,481	−1,157
1973–74 . . .	67,082	10,037	6,537	3,359	9,896	+141
1974–75 . . .	73,013	10,889	8,425	3,828	12,253	−1,365
1975–76 . . .	80,388	10,705	8,294	5,432	13,726	−3,021
1976–77 . . .	87,343	12,751	10,277	6,704	16,981	−4,230

Western Australia

Port of Fremantle. This is operated and controlled by the Fremantle Port Authority. The port covers an extensive water area of some 447 square kilometres and comprises an inner and an outer harbour. The inner harbour includes twenty deep-water land-backed berths providing more than 56,800 square metres of covered storage space and 3,994 metres of wharf berth accommodation. All inner harbour berths are dredged to a low water depth of 11 metres. The outer harbour includes three main anchorages: Gage Roads, Owen Anchorage and Cockburn Sound. Deep-water jetties, including the oil refinery jetty in Cockburn Sound, are available in the outer harbour. Ocean-going deep-draft ships enter the Sound by means of a channel dredged through Success and Parmelia Banks to a low water depth of 14 metres and a bottom width of 152 metres. In the outer harbour there are three tanker berths each with a low water depth of 13 metres at the Kwinana oil refinery, two berths at the nearby steelworks jetties with a low water depth of 12 metres, two berths at the alumina works jetty with a low water depth of 12 metres, one berth at the bulk cargo jetty with a low water depth of 13 metres, and one berth at the Kwinana grain jetty with a low water depth of 17 metres. There is also a special berth for the handling of explosives. Total effective berth accommodation in the outer harbour is 2,153 metres. Gross earnings amounted to $18,926,000 for 1975–76, working expenses to $15,095,000, interest charges on loan capital to $1,531,000 and loan indebtedness to $25,789,000.

The Ports of *Albany*, *Bunbury*, *Esperance*, *Geraldton* and *Port Hedland* are controlled by their respective Port Authorities.

Other ports. The following ports are controlled by the State Government Harbour and Light Department: *Broome*, *Carnarvon*, *Derby*, *Port Walcott* and *Wyndham*. Ports privately controlled comprise *Yampi* and *Dampier*, both operated by iron ore mining companies, and *Exmouth*, the port serving the communications installation at North West Cape. A private buoyed sea terminal is operated at *Barrow Island* for the shipment of crude oil, and private interests ship salt at *Cape Cuvier*, and salt and gypsum from *Useless Loop* in Shark Bay.

Tasmania

Port services in Tasmania are under the control of seven port authorities: the Marine Boards of Hobart, Devonport, Burnie, Circular Head (Stanley), King Island (Currie), Flinders Island (Whitemark) and the Port of Launceston Authority. Port facilities previously under the control of the Smithton Harbour Trust were vested in the Circular Head Marine Board from July 1973. The ports at *Hobart*, *Launceston* (*Bell Bay*), *Burnie* and *Devonport* are general cargo terminals for overseas and interstate shipping. Other ports catering primarily for overseas export of specialised cargoes include *Port Latta* (iron ore pellets), *Triabunna* (wood chips), and *Port Huon* (fruit).

AUTHORITIES CONTROLLING PORTS, TASMANIA: FINANCES
1971-72 TO 1975-76
($'000)

Authority	Loan indebtedness at 30 June	Receipts (revenue account) total	Expenditure (revenue account)			New loans raised	Loan expenditure
			Works and services	Loan charges	Total (a)		
Hobart	11,256	3,670	1,718	1,296	4,057	2,100	2,725
Launceston	9,487	4,676	2,794	1,075	4,768	450	460
Devonport	8,290	1,847	669	874	1,807	1,000	1,507
Burnie	11,974	2,382	705	1,025	2,275	200	553
Circular Head	1,096	179	48	111	185	85	121
King Island	92	116	30	12	87	..	..
Flinders Island	180	50	24	18	48	..	3
Total 1975–76	**42,375**	**12,918**	**5,988**	**4,411**	**13,226**	**2,935**	**5,368**
1974–75	40,133	12,402	5,031	3,740	11,345	3,214	4,693
1973–74	38,656	10,159	3,785	3,362	9,310	3,067	3,150
1972–73	36,973	9,007	2,761	3,026	7,170	3,457	4,805
1971–72	34,648	7,752	2,928	2,844	7,194	4,590	5,261

(a) Includes expenditure not specified in component items.

Shipping at principal ports

The following table shows the total volume of shipping—overseas and coastal—entering the principal ports of Australia.

TOTAL SHIPPING: VESSELS ENTERED AT PRINCIPAL PORTS(a)

Port of entry	1974–75		1975–76	
	Number	Net tons	Number	Net tons
		'000		'000
New South Wales—				
Sydney	2,925	16,481	2,409	15,584
Botany Bay	366	3,286	288	3,501
Newcastle	1,377	9,093	934	8,172
Port Kembla	804	7,401	734	7,473
Victoria—				
Melbourne	2,608	13,059	2,369	12,245
Geelong	420	2,936	371	2,794
Westernport	386	4,720	423	5,089
Queensland—				
Brisbane	1,246	8,573	1,219	8,519
Bundaberg	90	467	83	557
Cairns	176	696	149	748
Gladstone	429	7,005	388	6,206
Hay Point	159	4,459	150	4,416
Mackay	225	1,056	245	1,124
Rockhampton	80	299	97	354
Townsville	328	1,700	363	1,909
Weipa	285	5,337	232	4,277
South Australia—				
Adelaide	1,108	4,087	1,140	4,053
Port Lincoln	158	809	140	667
Port Pirie	146	863	157	976
Port Stanvac	68	1,238	97	1,605
Thevenard	100	430	66	295
Whyalla	311	2,369	283	2,060
Western Australia—				
Fremantle(b)	1,345	10,699	1,318	10,754
Albany	127	855	125	743
Bunbury	154	937	111	799
Geraldton	109	811	144	883
Yampi Sound	130	1,577	117	1,130
Port Hedland	639	15,749	561	13,066
Dampier	532	12,487	540	12,591
Port Walcott	173	4,716	171	4,538
Tasmania—				
Hobart	505	1,594	440	1,546
Burnie	344	1,398	366	1,569
Devonport	422	1,247	361	1,144
Launceston	413	2,314	386	2,211
Port Latta	40	716	32	692
Northern Territory—				
Darwin	134	670	148	678
Groote Island	96	700	106	770
Gove	129	1,852	97	1,491

(a) Excludes vessels of 200 net tons and under. (b) Includes Kwinana.

Shipping cargo

Overseas and interstate cargo

The following table shows a summary of overseas and interstate cargo discharged and loaded during the past five years.

CARGO DISCHARGED AND LOADED: AUSTRALIA
('000)

	Overseas cargo				*Interstate cargo*			
	Discharged		*Loaded*		*Discharged*		*Loaded*	
Year	*Tonnes*	*Cubic metres*	*Tonnes*	*Cubic metres*	*Tonnes*	*Cubic metres*	*Tonnes*	*Cubic metres*
1971–72 .	19,505	5,865	108,047	3,161	25,801	3,087	26,387	2,799
1972–73 .	20,167	6,084	132,362	3,555	27,364	3,136	28,006	2,927
1973–74 .	23,055	7,641	150,471	3,071	28,570	3,224	29,471	3,034
1974–75 .	21,893	8,029	164,866	2,926	27,864	3,199	28,454	3,143
1975–76 .	19,718	7,170	156,133	2,488	28,371	2,978	28,241	2,937

The following table shows details of container and non-container cargo discharged and loaded at Australian ports during 1975–76.

OVERSEAS CONTAINER AND NON-CONTAINER CARGO DISCHARGED AND LOADED BY PORT, 1975–76
('000)

	Discharged				*Loaded*			
	Container		*Non-container*		*Container*		*Non-container*	
Port	*Tonnes*	*Cubic metres*	*Tonnes*	*Cubic metres*	*Tonnes*	*Cubic metres*	*Tonnes*	*Cubic metres*
New South Wales—								
Sydney . . .	970	1,238	1,862	932	694	534	4,457	318
Newcastle . .	6	33	1,146	7	2	. .	9,410	5
Total . .	*976*	*1,271*	*3,008*	*939*	*696*	*534*	*13,867*	*323*
Victoria—								
Melbourne . .	526	2,331	1,042	1,180	1,051	471	1,064	243
Geelong . . .	. .	1	1,167	5	. .	1	2,060	2
Total . .	*526*	*2,332*	*2,209*	*1,185*	*1,051*	*472*	*3,124*	*245*
Queensland—								
Brisbane . .	70	259	782	326	337	46	1,691	79
Townsville . .	2	. .	460	40	3	28	1,183	116
Weipa . . .	. .	. .	51	. .	. .	. .	4,785	. .
Total . .	*72*	*259*	*1,293*	*366*	*340*	*74*	*7,659*	*195*
South Australia—								
Adelaide . .	10	47	401	329	37	49	680	221
Total . .	*10*	*47*	*401*	*329*	*37*	*49*	*680*	*221*
Western Australia—								
Fremantle . .	25	197	3,777	204	159	55	6,034	144
Albany . . .	. .	. .	96	. .	. .	. .	649	1
Exmouth Gulf .	. .	. .	1	. .	. .	. .	1	. .
Total . .	*25*	*197*	*3,874*	*204*	*159*	*55*	*6,684*	*145*
Tasmania—								
Hobart . . .	. .	. .	121	7	2	. .	197	3
Burnie . . .	1	. .	52	1	9	. .	152	1
Total . .	*1*	. .	*173*	*8*	*11*	. .	*349*	*4*
Other Ports . .	1	3	7,149	30	51	48	121,425	123
Total all Ports .	**1,611**	**4,109**	**18,107**	**3,061**	**2,345**	**1,232**	**153,788**	**1,256**

The following table shows details of overseas and interstate cargo discharged and loaded at principal Australian ports during 1975–76.

CARGO DISCHARGED AND LOADED AT PRINCIPAL PORTS, 1975–76
('000)

	Overseas cargo				*Interstate cargo*			
	Discharged		*Loaded*		*Discharged*		*Loaded*	
Port	*Tonnes*	*Cubic metres*	*Tonnes*	*Cubic metres*	*Tonnes*	*Cubic metres*	*Tonnes*	*Cubic metres*
New South Wales—								
Sydney	2,832	2,170	5,151	852	1,511	220	197	214
Botany Bay	1,550	..	127	..	3,980	..	164	..
Newcastle	1,152	41	9,412	5	3,561	..	868	22
Port Kembla	660	2	5,377	..	7,761	4	1,861	..
Other	..	..	469	18	19	..	..	..
Total New South Wales	*6,193*	*2,212*	*20,536*	*875*	*16,832*	*224*	*3,091*	*237*
Victoria—								
Melbourne	1,568	3,511	2,115	714	1,571	1,000	997	1,151
Geelong	1,167	6	2,060	3	436	..	897	..
Portland	94	..	259	1	47	..	19	..
Westernport	135	..	1,615	..	404	..	7,930	..
Total Victoria	*2,964*	*3,516*	*6,049*	*718*	*2,458*	*1,000*	*9,844*	*1,151*
Queensland—								
Brisbane	852	585	2,028	125	3,019	18	89	46
Cairns	29	..	430	..	12	..	10	..
Gladstone	714	..	7,505	..	61	..	517	..
Hay Point	..	..	10,997	..	..	..	148	..
Mackay	80	2	569	..	65	..	350	..
Townsville	462	40	1,186	144	105	2	177	1
Weipa	51	..	4,785	..	..	..	53	1
Other	1	..	1,020	..	26	..	348	..
Total Queensland	*2,188*	*627*	*28,521*	*269*	*3,288*	*20*	*1,692*	*47*
South Australia—								
Port Adelaide	411	376	717	270	677	19	214	17
Ardrossan	..	..	206	..	..	..	463	..
Port Lincoln	107	..	478	15	49	..	34	..
Port Pirie	13	..	634	..	246	..	190	..
Port Stanvac	1,849	..	101	..	533	..	612	..
Whyalla	105	..	1,693	..	1,216	..	2,196	..
Other	70	..	742	..	..	..	394	..
Total South Australia	*2,556*	*376*	*4,571*	*285*	*2,720*	*19*	*4,103*	*17*
Western Australia—								
Fremantle	3,802	401	6,193	199	1,171	18	1,714	48
Albany	96	..	649	1	21	..	2	..
Bunbury	68	1	805	27	..	..	59	..
Dampier	291	..	33,808	..	4	..	155	..
Geraldton	49	..	1,049	56	..	..	..	..
Port Hedland	47	5	30,375	2	18	..	5,675	..
Port Walcott	366	..	11,121	..	2	..	..	2
Yampi Sound	..	..	2,796	..	..	..	183	..
Other	62	2	1,713	30	53	..	276	..
Total Western Australia	*4,781*	*409*	*88,510*	*313*	*1,269*	*18*	*8,064*	*51*
Tasmania—								
Hobart	121	7	199	3	666	199	474	155
Burnie	53	1	161	1	241	333	342	241
Devonport	2	..	30	1	132	624	176	639
Launceston	54	9	1,156	22	671	417	167	337
Port Latta	29	..	1,858	..	7	..	..	..
Other	22	..	565	..	5	71	9	41
Total Tasmania	*281*	*17*	*3,969*	*27*	*1,722*	*1,644*	*1,168*	*1,413*
Northern Territory—								
Darwin	224	12	71	..	52	3	1	3
Groote Island	1	..	1,362	..	17	23	275	3
Gove	530	1	2,544	..	12	27	4	14
Total Northern Territory	*756*	*13*	*3,977*	*..*	*81*	*52*	*280*	*20*
Australia	**19,718**	**7,170**	**156,133**	**2,488**	**28,371**	**2,978**	**28,241**	**2,937**

Overseas cargo according to major trade areas and type of service

The following table shows details of cargo loaded in Australia for discharge overseas, and cargo discharged in Australia from overseas, classified according to the major trade areas of the world, by type of shipping service (i.e. liner or tramp, bulkship and tanker).

OVERSEAS CARGO LOADED AND DISCHARGED IN AUSTRALIA: MAJOR TRADE AREAS BY TYPE OF SERVICE

('000)

	Liners(a)		*Tramps, bulkships, tankers*		*All vessels*	
Major trade areas	*Tonnes*	*Cubic metres*	*Tonnes*	*Cubic metres*	*Tonnes*	*Cubic metres*
1975–76—						
Overseas cargo loaded—						
North America and Hawaii	561	167	5,356	4	5,918	171
South America . . .	26	16	477	3	503	19
Europe (including U.S.S.R.)	1,176	583	29,609	49	30,785	632
Africa	221	65	1,580	44	1,802	109
Asia—						
Eastern Asia . . .	1,091	366	107,917	33	109,008	399
Other Asia . . .	874	357	4,983	310	5,857	667
Total Asia . . .	1,965	723	112,900	342	114,865	1,065
Papua New Guinea, New Zealand and Pacific Islands	816	435	1,438	43	2,254	478
Indian Ocean Islands and Antarctic Area . .	..	..	5	14	5	14
Overseas cargo discharged—						
North America and Hawaii	457	941	1,285	339	1,742	1,280
South America . . .	5	13	..	..	5	13
Europe (including U.S.S.R.)	547	2,036	536	124	1,083	2,161
Africa	52	72	111	2	163	74
Asia—						
Eastern Asia . . .	559	1,742	2,290	1,116	2,849	2,858
Other Asia . . .	192	499	11,422	106	11,614	606
Total Asia . . .	752	2,242	13,713	1,222	14,464	3,464
Papua New Guinea, New Zealand and Pacific Islands	595	156	1,023	13	1,617	170
Indian Ocean Islands and Antarctic Area . .	..	..	644	9	644	9
Total loaded—						
1973–74. . . .	4,588	2,835	145,883	237	150,471	3,071
1974–75. . . .	4,643	2,503	160,224	423	164,866	2,926
1975–76. . . .	**4,766**	**1,989**	**151,366**	**499**	**156,133**	**2,488**
Total discharged—						
1973–74. . . .	2,394	6,012	20,661	1,629	23,055	7,641
1974–75. . . .	2,229	5,679	19,663	2,350	21,893	8,029
1975–76. . . .	**2,407**	**5,459**	**17,311**	**1,711**	**19,718**	**7,170**

(*a*) Cargo and passenger liners.

Overseas cargo according to country of registration of vessels

The following table shows the total overseas cargo, discharged and loaded combined, according to the country in which the vessels were registered.

OVERSEAS CARGO DISCHARGED AND LOADED, BY COUNTRY OF REGISTRATION OF VESSELS: AUSTRALIA
('000)

Country of registration of vessels	1973–74 Tonnes	1973–74 Cubic metres	1974–75 Tonnes	1974–75 Cubic metres	1975–76 Tonnes	1975–76 Cubic metres
Australia	387	578	367	503	715	655
Denmark	1,891	187	2,382	221	704	156
France	266	60	158	151	572	129
Germany, Federal Republic of	4,644	686	5,465	619	3,342	540
Greece	12,145	193	9,780	132	9,598	101
Hong Kong	393	108	618	41	1,656	140
India	3,478	92	3,590	74	2,417	73
Italy	2,023	174	1,799	188	1,353	141
Japan	59,873	1,351	64,576	1,830	67,783	1,571
Liberia	25,057	399	28,018	288	29,042	311
Netherlands	2,399	574	2,410	430	1,558	305
New Zealand	613	1,047	644	629	675	146
Norway	20,604	486	18,399	538	12,950	419
Panama	3,968	64	6,021	245	6,619	333
Singapore, Republic of	1,489	311	1,719	406	2,061	366
Sweden	3,279	495	3,121	465	1,982	580
United Kingdom	21,518	2,884	23,845	2,995	19,452	2,593
United States of America	370	370	1,006	378	368	249
U.S.S.R.	961	70	1,031	126	1,988	189
Other	8,168	584	11,820	686	11,016	661
Grand total	**173,526**	**10,713**	**186,769**	**10,945**	**175,851**	**9,658**

Vessels registered in Australia

The following table shows the number and gross tonnage of trading vessels of 200 tons and over registered in Australia at 30 June 1977, classified according to: (i) year of construction; (ii) type of trade in which the vessels were engaged; and (iii) vessels built in Australian or in overseas shipyards.

AUSTRALIAN-REGISTERED TRADING VESSELS, 30 JUNE 1977(*a*)
(*Source:* Department of Transport)

Year of construction	Overseas and interstate vessels No.	Overseas and interstate vessels Gross tons	Intrastate vessels No.	Intrastate vessels Gross tons	Built in Australian yards No.	Built in Australian yards Gross tons	Built overseas No.	Built overseas Gross tons	Total No.	Total Gross tons
1972 and earlier	53	612,617	16	162,675	46	555,667	23	219,625	69	775,292
1973	5	31,320	1	15,470	6	46,790	..	..	6	46,790
1974	4	91,727	1	15,939	4	101,394	1	6,272	5	107,666
1975	6	78,227	1	388	4	30,724	3	47,891	7	78,615
1976	4	149,995	..	..	2	10,562	2	139,433	4	149,995
1977 to date(*b*)	1	43,878	..	..	..	..	1	43,878	1	43,878
Total registered in Australia	**73**	**1,007,764**	**19**	**194,472**	**62**	**745,137**	**30**	**457,099**	**92**	**1,202,236**

(*a*) Excludes vessels of 200 net tons and under. (*b*) To 30 June.

Miscellaneous

Shipping casualties

Courts of Marine Inquiry are constituted by a magistrate assisted by skilled assessors, and, when necessary, are held at the principal port in each State and at Launceston (Tasmania). Such courts have power to deal with the certificates of officers who are found at fault.

RAILWAYS

Government railways

Government railways in Australia operate in all States and Territories and provide an important means of transportation. In 1975–76 a total of 104.4 million tonnes of freight was carried, an increase of 116.6 per cent over the 48.2 million tonnes carried in 1956-57. However, in the same twenty-year period, the number of passengers carried (mostly within the suburban areas of Sydney and Melbourne) declined by 36.5 per cent from 499 million in 1956–57 to 317 million in 1975–76 (excluding Perth metropolitan passenger journeys). The number of train-kilometres run during 1975-76 (150 million) was a decrease of 2.0 per cent since 1956-57 (153 million), which is an indication of the trend towards heavier train loads with the more powerful motive power now available. Since the introduction of the first mainline diesel-electric locomotives in 1950, their numbers have increased greatly until at 30 June 1976 there were 1,474 throughout Australia. Diesel-electric locomotives during 1975-76 hauled 97 million train-kilometres, while steam locomotives hauled only 32 thousand train-kilometres.

Railway development

Details outlining railway development in Australia are given in Year Book No. 61, page 380. The following table sets out the route-kilometres of government railways in each State and Territory from 1972 to 1976. Details prior to 1972 can be found in Year Book No. 61, page 381.

GOVERNMENT RAILWAYS: ROUTE-KILOMETRES OPEN, 1972 TO 1976
(Kilometres)

30 June—	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1972 . .	10,129	6,357	9,560	5,829	6,846	805	789	8	40,323
1973 . .	10,129	6,357	9,560	5,904	6,897	830	789	8	40,474
1974 . .	10,130	6,329	9,472	5,905	6,922	851	789	8	40,406
1975 . .	10,131	6,331	9,780	5,909	6,805	851	789	8	40,604
1976 . .	10,130	6,325	9,844	5,915	6,893	849	789	8	40,753

One feature of the Australian government railways is the variety of gauges to which they are built. There are three principal gauges: 'broad' (1,600 mm), 'standard' (1,435 mm), and 'narrow' (1,067 mm). Extensive route-kilometres of 1,067 mm gauge railway were built in areas where traffic volumes were initially known to be small and where it was imperative to minimise the costs of construction. The following table shows the route-kilometres open in each State and Territory at 30 June 1976 according to gauge.

GOVERNMENT RAILWAYS: ROUTE-KILOMETRES OPEN, BY GAUGE, 30 JUNE 1976
(Kilometres)

Gauge	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1600 mm	(*a*)328	(*b*)5,986	..	2,533	..	..	..	..	8,847
1435 mm	(*c*)9,802	325	111	(*d*)1,828	(*e*)2,095	..	..	(*f*)8	14,169
1067 mm	..	..	9,685	(*g*)1,554	(*h*)4,798	849	(*i*)789	..	17,675
762 mm	..	14	..	..	..	..	..	..	14
610 mm	..	..	48	..	..	..	..	..	48
Total . .	**10,130**	**6,325**	**9,844**	**5,915**	**6,893**	**849**	**789**	**8**	**40,753**
Per 1,000 of population	2.07	1.69	4.70	4.71	5.95	2.09	8.02	0.04	2.94
Per 1,000 square kilometre . . .	12.64	27.79	5.70	6.01	2.73	12.52	0.59	3.33	5.30

(*a*) Portion of Victorian Railway System. (*b*) Excludes 325 route-kilometres of 1600 mm gauge which almost parallels the 1435 mm gauge line between Melbourne and Murray River. (*c*) Includes 47 route-kilometres of 1435 mm gauge line from Broken Hill to Cockburn owned and operated by the South Australian Government Railways. (*d*) Comprises 1127 kilometres of the Trans-Australian and 350 kilometres of the Central Australia Railway systems and 351 kilometres from Port Pirie to Cockburn. (*e*) Includes 730 kilometres of the Trans-Australian Railway system. (*f*) Australian Capital Territory Railway system. (*g*) Includes 591 kilometres of the Central Australia Railway system. (*h*) Excludes 132 kilometres of 1067 mm/1435 mm dual gauge line which are included in the 1435 mm gauge line. (*i*) Comprises 278 kilometres of the Central Australia and 511 kilometres of the North Australia Railway systems.

Government railway systems

Prior to 1 July 1975 there were six separate State Government railway systems and the Commonwealth Railways system. In 1975, however, Commonwealth and State Government legislation was enacted for the transfer to the Commonwealth Government of the Tasmanian Government Railways and the non-metropolitan South Australian railways. These transfers took effect from 1 July 1975 and the Australian National Railways Commission came into existence on that date to control the two transferred systems and the former Commonwealth Railways. As the former Commonwealth Railways includes routes in South Australia and Western Australia, and the Victorian system extended into New South Wales, the system route-kilometres shown in the following table do not represent route-kilometres within each State and Territory (these are shown in the previous table). The route-kilometres of each system open for traffic, according to gauge, at 30 June 1976 is shown in the following table.

GOVERNMENT RAILWAYS: ROUTE-KILOMETRES OPEN, BY GAUGE AND SYSTEM 30 JUNE 1976

(Kilometres)

	Gauge					
System	*1600 mm*	*1435 mm*	*1067 mm*	*762 mm*	*610 mm*	*Total*
New South Wales	..	(a)9,755	..	..	..	9,755
Victoria	(b)6,314	325	..	14	..	6,653
Queensland	..	111	9,685	..	48	9,844
South Australia	2,533	398	963	..	..	3,894
Western Australia	..	1,365	(c)4,798	..	..	6,163
Tasmania	..	..	849	..	..	849
National	..	2,215	1,380	..	..	3,595
Australia	**8,847**	**14,169**	**17,675**	**14**	**48**	**40,753**

(a) Includes 446 route-kilometres which are electrified. (b) Excludes 325 route-kilometres of 1600 mm gauge line which almost parallels the 1435 mm gauge line between Melbourne and Murray River. Includes 421 route-kilometres which are electrified. (c) Excludes 132 kilometres of 1067 mm/1435 mm dual gauge line which are included in the 1435 mm gauge line.

The New South Wales system is based on Sydney. The Victorian system, based on Melbourne, radiates throughout the State and extends into areas of southern New South Wales. The Queensland system extends along the coast from Brisbane to Cairns with branch lines extending inland from the larger ports. The State Government railway system in Western Australia is concentrated in the south-western section of the State, and extends north to Meekatharra and east to Kalgoorlie and Esperance. Most of the railways in South Australia are located in the south-east of the State, but an isolated narrow gauge system operates in the Eyre Peninsula area. In Tasmania several branch lines extend from the principal line connecting Hobart to Launceston.

The former Commonwealth Railways component of the Australian National Railways comprises three operational railways: the standard gauge Trans-Australian Railway from Port Pirie to Kalgoorlie, the Central Australian Railway from Port Augusta to Alice Springs (standard gauge to Marree and narrow gauge from Marree to Alice Springs) and the standard gauge Australian Capital Territory Railway from Queanbeyan to Canberra. Services operating over the narrow gauge North Australia Railway from Darwin to Larrimah were withdrawn from 30 June 1976. In this section of the chapter, details of the former Commonwealth railways are combined; however, particulars for each railway are shown separately in the annual publication, *Rail, Bus and Air Transport* (9201.0).

Information about standardisation of railway gauges, and completion and commencement dates of services and centres linked is given in Year Book No. 58, page 348.

Developments in standardisation

The Commonwealth Government has enacted legislation for the construction of a standard gauge connection between Adelaide and the Trans-Australian Railway. Work on this project has commenced and, when the link is completed, all mainland State capital cities will be connected to the standard gauge network.

The Commonwealth Government has also enacted legislation for the construction of a reliable, all-weather standard gauge railway between Tarcoola, on the Trans-Australian Railway, and Alice Springs to replace the existing flood-prone narrow gauge section of the Central Australia Railway between Marree and Alice Springs. The line is expected to be completed in 1981–82.

Operations of Government railway systems

Particulars of train-kilometres, passenger journeys, passenger-kilometres, freight-tonnes carried, and freight tonne-kilometres included in this section refer only to operations for which revenue is received.

Summary of operations

GOVERNMENT RAILWAYS: SUMMARY OF OPERATIONS, SYSTEMS, 1975–76

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*National*	*Aust.*
Train-kilometres ('000)(*a*)—								
Suburban passenger	19,900	14,721	3,326	3,640	2,249	1	..	43,836
Country passenger .	10,251	7,823	4,067	2,024	1,257	225	1,471	27,120
Goods(*b*) . .	24,791	11,274	23,421	4,639	9,350	1,522	4,124	79,122
Total . . .	**54,943**	**33,818**	**30,813**	**10,304**	**12,856**	**1,748**	**5,595**	**150,078**
Passenger journeys ('000)(*c*)—								
Suburban . .	157,919	104,748	32,448	12,033	n.a.	19	..	n.a.
Country(*d*) . .	1,953	4,921	1,831	639	351	132	219	10,046
Total . . .	**159,872**	**109,669**	**34,278**	**12,672**	**n.a.**	**151**	**(*e*)219**	**n.a.**
Passenger-kilometres ('000)(*f*)—								
Suburban . .	n.a.	1,670,045	n.a.	170,124	n.a.	141	..	n.a.
Country . .	n.a.	657,807	n.a.	158,281	127,768	16,301	218,904	n.a.
Total . . .	**n.a.**	**2,327,852**	**n.a.**	**328,405**	**n.a.**	**16,442**	**218,904**	**n.a.**
Freight—								
Tonnes carried ('000)(*d*)	**31,234**	**10,803**	**33,118**	**6,139**	**17,647**	**1,610**	**3,804**	**104,355**
Net tonne-kilometres (million)(*g*) . .	8,566.9	3,071.4	10,101.2	1,686.6	4,542.4	231.8	2,609.0	30,809.3

(*a*) One train (i.e. a complete unit of locomotive and vehicles, electric train set, or rail motor) travelling one kilometre for revenue purposes. (*b*) Includes mixed train-kilometres. (*c*) Based on ticket sales making allowances for periodical tickets. Tickets sold at concession rates are counted as full journeys. (*d*) Inter-system traffic is included in the total for each system over which it passes. (*e*) Passenger journeys continuing over both the Trans-Australian and Central Australia Railway Systems are counted twice. In 1975–76 these numbered 6,414. (*f*) One passenger travelling one kilometre. (*g*) One tonne carried one kilometre.

Rolling stock

GOVERNMENT RAILWAYS: ROLLING STOCK INCLUDED IN CAPITAL ACCOUNT
(Number)

	Locomotives							
System and date	*Steam*	*Diesel-electric*	*Electric*	*Other(a)*	*Total*	*Coaching stock(b)*	*Goods stock*	*Service stock*
30 June 1976—								
New South Wales .	..	421	40	85	546	2,809	15,701	1,847
Victoria . . .	19	266	35	82	402	2,368	18,740	1,481
Queensland . .	..	416	..	86	502	1,150	20,766	2,228
South Australia .	4	151	..	..	155	394	7,046	550
Western Australia .	2	186	..	20	208	376	10,972	467
Tasmania . . .	7	50	..	21	78	113	2,097	168
National . . .	..	100	..	..	100	146	3,074	514
Australia . .	**32**	**1,590**	**75**	**294**	**1,991**	**(*c*)7,592**	**(*c*)78,405**	**(*c*)7,256**
30 June—								
1975. . . .	37	1,573	75	295	1,980	7,624	78,810	7,614
1974. . . .	78	1,563	76	294	2,011	7,870	79,086	7,723
1973. . . .	87	1,539	76	291	1,993	7,982	79,913	7,800
1972. . . .	168	1,489	76	267	2,000	8,178	81,135	8,033

(*a*) Includes non-passenger-carrying diesel power vans. (*b*) Includes all brake vans and non-powered electric train stock. (*c*) Includes jointly-owned stock.

Train-kilometres

Train-kilometres by type of service and motive power

GOVERNMENT RAILWAYS: TRAIN-KILOMETRES 1975-76
('000 kilometres)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*National*	*Aust.*
Type of service—								
Passenger—suburban	19,900	14,721	3,326	3,640	2,249	1	..	43,836
Passenger—country	10,251	7,823	4,067	2,024	1,257	225	1,471	27,120
Goods(*a*)	24,791	11,274	23,421	4,639	9,350	1,522	4,124	79,122
Total	**54,943**	**33,818**	**30,813**	**10,304**	**12,856**	**1,748**	**5,595**	**150,078**
Type of motive power—								
Hauled by diesel-electric locomotives	30,158	15,510	27,953	5,771	10,216	1,743	5,465	96,816
Hauled by steam locomotives	..	19	4	7	1	..	..	32
Hauled by electric and other locomotives	3,282	1,413	523	..	..	..	..	5,218
Powered coaching stock	21,503	16,877	2,333	4,526	2,639	5	130	48,012
Total	**54,943**	**33,818**	**30,813**	**10,304**	**12,856**	**1,748**	**5,595**	**150,078**

(*a*) Includes mixed train-kilometres.

Total train-kilometres

TRAIN KILOMETRES
('000 kilometres)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*National*	*Aust.*
971-72	61,176	33,175	29,165	10,018	12,410	1,767	6,013	153,724
972-73	59,941	33,058	29,523	10,024	11,669	1,960	5,859	152,035
973-74	58,255	33,345	28,542	10,313	12,617	2,154	5,966	151,192
974-75	55,661	33,876	30,114	10,189	12,866	1,983	5,936	150,624
975-76	54,943	33,818	30,813	10,304	12,856	1,748	5,595	150,078

Passenger traffic

Passenger journeys

GOVERNMENT RAILWAYS: PASSENGER JOURNEYS(*a*), SYSTEMS
('000)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*National*	*Aust.*
SUBURBAN								
1971-72	(*b*)196,097	133,840	30,184	12,918	10,800	597	..	384,436
1972-73	194,140	108,970	30,500	12,756	11,143	559	..	358,068
1973-74	192,228	110,141	32,003	12,914	11,332	514	..	359,132
1974-75	167,868	112,757	34,821	11,997	n.a.	273	..	n.a.
1975-76	157,919	104,748	32,448	12,033	n.a.	19	..	n.a.
COUNTRY(*c*)								
1971-72	(*b*)12,403	3,954	1,762	515	350	189	207	19,380
1972-73	11,985	4,180	1,645	564	376	193	222	19,165
1973-74	6,716	4,507	1,720	683	416	179	263	14,485
1974-75	3,977	4,963	1,811	700	394	156	239	12,239
1975-76	1,953	4,921	1,831	639	351	132	219	10,046
TOTAL(*c*)								
1971-72	(*b*)208,500	137,794	31,946	13,433	11,150	785	207	403,816
1972-73	206,125	113,150	32,145	13,320	11,518	752	222	377,233
1973-74	198,944	114,648	33,723	13,597	11,748	693	263	373,618
1974-75	171,844	117,720	36,632	12,697	n.a.	429	239	n.a.
1975-76	159,872	109,669	34,278	12,672	n.a.	151	219	n.a.

(*a*) Based on ticket sales making allowance for periodical tickets. Tickets sold at concession rates are counted as full journeys. (*b*) Figures for earlier years include unremunerative journeys. (*c*) Inter-system traffic is included in the total for each system (including each National railway) over which it passes.

Freight traffic

Freight carried

GOVERNMENT RAILWAYS: FREIGHT CARRIED(*a*), SYSTEMS

('000 tonnes)

Commodity and year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*National*	*Aust.*
1975–76—								
Wheat . . .	3,488	1,866	692	543	3,874	..	..	10,463
Other agricultural produce . . .	1,163	943	3,169	537	113	13	24	5,962
Coal, coke and briquettes . . .	14,557	758	21,271	8	1,140	130	1,824	39,688
Other minerals(*b*) .	2,908	319	3,539	1,700	9,155	37	132	17,790
Wool . . .	135	223	37	33	148	5	7	588
Fertilisers and manure	187	394	131	208	472	46	2	1,440
Cement . . .	556	822	212	58	130	285	68	2,131
Timber . . .	135	261	110	69	278	331	29	1,213
Livestock . . .	212	356	705	199	55	1	67	1,595
All other commodities	7,893	4,861	3,252	2,784	2,282	762	1,651	23,485
Total . . .	**31,234**	**10,803**	**33,118**	**6,139**	**17,647**	**1,610**	**3,804**	**104,355**
1974–75 . . .	33,476	11,057	30,208	6,738	16,153	1,731	4,102	103,465
1973–74 . . .	32,651	11,370	25,401	6,607	14,839	1,828	4,270	96,966
1972–73 . . .	31,044	11,475	24,666	5,781	13,706	1,554	4,255	92,481
1971–72 . . .	32,310	11,795	19,267	6,014	13,867	1,299	4,119	88,671

(*a*) Inter-system traffic is included in the total for each system (including each National railway) over which it passes. (*b*) Includes sand and gravel.

Freight net tonne-kilometres

GOVERNMENT RAILWAYS: FREIGHT NET TONNE-KILOMETRES, SYSTEMS

(Million)

Commodity and year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*National*	*Aust.*
1975–76—								
Wheat . . .	1,425.0	514.0	(*a*)	75.2	1,068.3	..	..	(*a*)
Other agricultural produce . . .	651.2	288.1	(*a*)	87.4	37.5	2.6	33.9	(*a*)
Coal, coke and briquettes . . .	1,247.9	134.6	(*a*)	3.5	179.0	25.9	462.4	(*a*)
Other minerals(*b*) .	563.7	84.1	(*a*)	381.7	1,767.3	2.8	28.9	(*a*)
Wool . . .	48.4	45.3	(*a*)	9.5	65.0	1.0	11.1	(*a*)
Fertilisers and manure	119.0	102.6	(*a*)	63.0	170.8	13.8	2.8	(*a*)
Cement . . .	177.5	101.4	(*a*)	20.1	43.3	25.0	19.7	(*a*)
Timber . . .	113.0	84.4	(*a*)	21.3	100.2	27.7	44.4	(*a*)
Livestock . . .	125.9	107.8	383.2	44.2	15.9	0.3	32.4	709.7
All other commodities	4,095.3	1,608.9	9,718.0	980.7	1,095.2	132.7	1,973.4	19,604.2
Total . . .	**8,566.9**	**3,071.4**	**10,101.2**	**1,686.6**	**4,542.4**	**231.8**	**2,609.0**	**30,809.3**
1974–75 . . .	8,782.3	3,091.4	9,118.0	1,756.9	4,262.4	273.3	2,507.4	29,791.7
1973–74 . . .	8,642.5	3,126.2	7,855.1	1,753.1	4,142.5	277.9	2,532.0	28,329.3
1972–73 . . .	8,117.6	3,164.8	7,613.1	1,588.4	3,686.2	210.6	2,201.1	26,581.7
1971–72 . . .	8,615.2	3,264.2	6,315.1	1,583.0	3,447.8	169.7	2,007.9	25,402.9

(*a*) Not available separately, included with 'All other commodities'. (*b*) Includes sand and gravel.

Finance

GOVERNMENT RAILWAYS: GROSS EARNINGS(a), SYSTEMS, 1975–76
($'000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*National*	*Aust.*
Coaching—								
Suburban passenger	58,069	33,370	5,428	2,960	. .	2	. .	99,826
Country passenger	9,256	13,215	5,502	3,198	3,373	207	6,474	41,226
Other	19,361	8,548	3,657	1,471	2,563	328	711	36,641
Total coaching	86,686	55,133	14,587	7,629	5,936	537	7,185	177,693
Freight (goods and livestock)—								
Wheat	(c)	13,251	6,947	2,798	30,660	. .	1	n.a.
Other agricultural produce	(c)	6,010	19,130	2,865	1,205	102	416	n.a.
Coal, coke and briquettes	(c)	3,761	91,903	56	5,946	621	3,034	n.a.
Other minerals(d)	(c)	1,844	22,079	8,126	25,589	113	500	n.a.
Wool	(c)	1,292	1,086	245	3,528	44	112	n.a.
Fertilisers and manure	(c)	1,933	1,906	900	3,655	407	36	n.a.
Cement	(c)	4,331	2,877	369	1,213	1,074	378	n.a.
Timber	(c)	2,625	1,753	392	3,183	893	422	n.a.
Livestock	(c)	2,262	11,829	1,689	598	53	728	n.a.
All other commodities	(c)	43,100	50,536	18,156	32,549	4,205	34,473	n.a.
Total freight	*208,627*	*80,409*	*210,046*	*35,596*	*108,126*	*7,512*	*40,101*	*690,417*
Miscellaneous	*23,450*	*11,750*	*5,859*	*6,642*	*16,788*	. .	*7,333*	*71,642*
Grand total	**318,763**	**147,292**	**230,492**	**49,688**	**130,850**	**8,048**	**54,618**	**939,751**

(a) Excludes Government grants. (b) Includes State Co-ordination Tax Contribution. (c) Not available separately. (d) Includes sand and gravel.

GOVERNMENT RAILWAYS: WORKING EXPENSES, SYSTEMS, 1975–76
($'000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.(a)*	*National*	*Aust.*
Maintenance of way and works	77,586	(b)	72,870	(a)20,544	(a)27,537	6,557	12,960	218,054
Motive power(c)	154,106	(b)	95,902	(a)29,001	(a)43,514	6,966	17,772	347,261
Traffic	118,259	237,230	74,872	(a)27,386	33,420	5,715	13,231	510,113
Other charges	122,237	34,710	22,018	14,422	14,137	2,848	20,317	230,689
Total	**472,188**	**271,940**	**265,662**	**(a)91,352**	**(a)118,607**	**22,087**	**(a)64,279**	**1,306,115**

(a) Includes provision of reserves for depreciation. (b) Not available separately; included with traffic. (c) Includes maintenance of rolling stock.

GOVERNMENT RAILWAYS: GROSS EARNINGS, WORKING EXPENSES, AND NET EARNINGS, SYSTEMS

($'000)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*National*	*Aust.*
GROSS EARNINGS								
1971–72 . . .	266,268	112,685	124,782	35,386	63,634	6,123	29,208	638,086
1972–73 . . .	254,070	111,833	137,745	35,085	63,600	6,835	31,241	640,408
1973–74 . . .	262,691	115,613	149,844	39,531	78,480	7,674	37,217	691,050
1974–75 . . .	291,373	129,942	183,687	47,950	106,844	8,266	41,367	809,429
1975–76 . . .	318,763	147,292	230,492	49,688	130,850	8,048	54,618	939,751
WORKING EXPENSES								
				(*a*)	(*a*)	(*a*)	(*a*)	
1971–72 . . .	263,484	138,722	119,743	46,521	63,748	10,391	31,540	674,149
1972–73 . . .	298,180	156,120	133,384	52,320	68,223	11,829	34,487	754,543
1973–74 . . .	349,897	188,599	162,101	60,747	81,916	15,598	44,423	903,281
1974–75 . . .	415,234	243,393	227,925	80,466	103,696	19,973	55,847	1,146,534
1975–76 . . .	472,188	271,940	265,662	91,352	118,607	22,087	64,279	1,306,115
NET EARNINGS(*b*)								
1971–72 . . .	2,784	−26,036	5,038	−11,135	−115	−4,267	−2,333	−36,063
1972–73 . . .	−44,111	−44,287	4,361	−17,236	−4,622	−4,994	−3,247	−114,135
1973–74 . . .	−87,206	−72,986	−12,257	−21,216	−3,436	−7,924	−7,206	−212,231
1974–75 . .	−123,861	−113,451	−44,238	−32,516	3,148	−11,707	−14,479	−337,104
1975–76 . .	−153,425	−124,648	−35,170	−41,664	12,243	−14,039	−9,661	−366,364

(*a*) Includes provision of reserves for depreciation. (*b*) Excess of gross earnings over working expenses as shown in this table.

GOVERNMENT RAILWAYS: SURPLUS OR DEFICIT, SYSTEMS, 30 JUNE 1976

($'000)

System	*Net earnings—excess of gross earnings over working expenses*	**Plus** *grants and other earnings payable to railways*				**Less** *other expenses charged to railways*					*Surplus (+) or deficit (−)*
		State Government grants	*Road motor earnings*	*Other*	*Total*	*Interest and exchange*	*Sinking fund*	*Road motor expenses (a)*	*Other*	*Total*	
New South Wales	−153,425	(*b*)4,799	..	..	4,799	44,815	8,622	..	(*c*)1,810	55,246	−203,872
Victoria . .	−124,648	(*d*)63	95	..	158	13,849	527	456	..	14,831	−139,321
Queensland .	−35,170	..	..	..	..	49,936	..	..	(*e*)3,000	52,936	−88,106
South Australia .	−41,664	..	411	..	411	1,214	..	611	(*f*)62	1,887	−43,140
Western Australia	12,243	..	1,462	(*g*)85	1,547	14,173	..	2,657	..	16,831	−3,041
Tasmania . .	−14,039	..	..	113	113	..	..	..	..	..	−13,926
National . .	−9,661	..	..	..	..	..	..	..	..	..	−9,661
Australia .	**−366,364**	**4,862**	**1,968**	**198**	**7,028**	**123,987**	**9,149**	**3,724**	**4,872**	**141,731**	**−501,067**

(*a*) Includes interest and exchange. (*b*) Grants to meet losses on country developmental lines, and to subsidise payments due to superannuation account. (*c*) Loan management and loan flotation expenses. (*d*) Kerang–Koondrook tramway recoup from Treasury. (*e*) Demolished assets written off. (*f*) Interest and repayment under Railway Standardisation and Railway Equipment Agreements. (*g*) Australian currency revaluation adjustment.

Employment, salaries and wages

GOVERNMENT RAILWAYS: AVERAGE NUMBER OF EMPLOYEES (EXCLUDING CONSTRUCTION STAFF) AND SALARIES AND WAGES PAID(*a*), 1975–76

		N.S.W.	*Vic.(b)*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*National*	*Aust.*
Salaried staff . .		8,932	5,363	4,057	1,749	2,168	352	775	23,396
Wages staff. . .		30,399	19,735	19,946	5,732	7,589	1,589	3,365	88,355
Total staff .		**39,331**	**25,098**	**24,003**	**7,481**	**9,757**	**1,941**	**4,140**	**111,751**
Salaries and wages paid .	$'000	355,168	217,081	213,932	71,414	81,433	17,388	35,500	991,915

(*a*) Excludes salaries and wages paid to road motor staff. (*b*) Includes construction staff.

Non-government railways

The Australian non-government railways covered in this section are those which operate outside industrial estates, harbour precincts, mines and quarries with a route distance exceeding two kilometres.

The figures in the table have been compiled from information supplied to the Bureau of Transport Economics by the various railway operators. All operators provided details of tonnes consigned and most provided details of tonne-kilometres performed. In a few cases the tonne-kilometre figures have been estimated by the Bureau of Transport Economics using the advised average length of haul.

TRAFFIC TASK PERFORMED BY AUSTRALIAN NON-GOVERNMENT RAILWAYS 1966-67 TO 1975-76

Year	*Iron ore railways*	*Sugar tramways*	*Other non-government railways*	*Total non-government railways*	*Non-government as a percentage of total tonnes consigned/ tonne-kilometres performed*
	TONNES CONSIGNED ('000)				Per cent
1966–67 . .	10,048	14,507	11,612	36,167	n.a.
1967–68 . .	16,576	14,327	12,538	43,441	40
1968–69 . .	25,203	16,085	11,398	52,686	45
1969–70 . .	37,366	13,730	14,990	66,086	47
1970–71 . .	49,537	14,801	14,496	78,834	50
1971–72 . .	54,865	16,189	13,742	84,796	51
1972–73 . .	67,723	16,060	16,990	100,773	55
1973–74 . .	84,867	16,442	19,970	121,279	58
1974–75 . .	95,666	17,163	21,180	134,009	59
1975–76 . .	83,837	18,844	18,678	121,359	56
	TONNE-KILOMETRES (million)				
1966–67 . .	1,411	234	201	1,846	9
1967–68 . .	2,848	236	200	3,284	14
1968–69 . .	5,009	260	203	5,472	20
1969–70 . .	8,903	222	219	9,344	28
1970–71 . .	13,332	239	198	13,769	35
1971–72 . .	16,121	261	214	16,596	40
1972–73 . .	19,501	259	272	20,032	43
1973–74 . .	25,890	264	336	26,490	48
1974–75 . .	29,559	275	341	30,175	50
1975–76 . .	25,748	302	304	26,354	46

TRAM, BUS, AND FERRY SERVICES

Systems in operation

Trams and trolley-buses. At 30 June 1976 tram services were in operation in Melbourne, Victoria and in Adelaide, South Australia. The last of the trolley-bus services ceased to operate in Australia with its replacement by buses in Perth, Western Australia, on 29 August 1969. Tram services ceased to operate in Ballarat on 19 September 1971 and in Bendigo on 16 April 1972.

In many parts of Australia private, lines used for special purposes in connection with the timber, mining, sugar, or other industries are often called tramways, but they are more properly railways, and the traffic on them has nothing in common with that of the street tram used for the conveyance of passengers.

Buses. Services are operated by government or municipal authorities and private operators. Statistics are collected for government and municipal bus services located in all State capital cities; Canberra, Australian Capital Territory; Newcastle, New South Wales; Rockhampton, Queensland; Fremantle and the Eastern Goldfields area, Western Australia; Launceston and Burnie, Tasmania; Darwin, Northern Territory; and for country road services operated by the Western Australian Government Railways. Particulars of bus services under the control of private operators for the States of New South Wales, Victoria, Queensland, South Australia and Western Australia are given in the annual bulletin *Rail, Bus and Air Transport* (9201.0).

Ferries. Ferry passenger services are operated in the following States: New South Wales, at Sydney and Newcastle; Western Australia, on the Swan River at Perth; and Tasmania, on the Mersey River at Devonport. Control is exercised by both government authorities and private operators. Particulars of the operations of these services are given in previous issues of this Year Book and in the annual bulletin *Rail, Bus and Air Transport* (9201.0). In Victoria and Queensland the services operated are not extensive. There are no ferry passenger services in South Australia.

Government and municipal tram and bus services

Because of the development in recent years of the various forms of public road transport under the control of single authorities and the gradual replacement of tram services by bus services, it is not possible to obtain separate statistics for all phases of the activities of each form of transport, particularly financial operations.

TRAM AND BUS SERVICES: GOVERNMENT AND MUNICIPAL
STATES AND TERRITORIES, 1975–76

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Route-kilometres at 30 June—										
Tram(*a*)	kilometres	..	217	..	11	..	..	..	..	228
Bus	,,	998	249	658	820	7,631	453	64	344	11,217
Vehicle-kilometres—										
Tram	'000	..	24,235	..	710	..	..	..	..	24,945
Bus	,,	63,908	12,681	19,061	32,513	41,553	9,487	1,032	9,896	190,131
Rolling stock at 30 June—										
Tram	number	..	739	..	26	..	..	..	..	765
Bus	,,	1,854	279	552	715	884	315	33	375	5,007
Passenger journeys—										
Tram	'000	..	106,129	..	1,248	..	..	..	..	107,375
Bus	,,	182,702	20,821	49,588	57,088	60,286	20,512	661	14,505	406,163
Gross revenue(*b*)—										
Tram and bus	$'000	44,885	30,272	11,499	14,454	14,114	3,000	257	2,939	121,420
Working expenses(*c*)—										
Tram and bus	$'000	81,101	47,647	16,898	22,446	24,396	7,879	878	6,997	208,241
Net revenue—										
Tram and bus	$'000	−36,217	−17,375	−5,399	−7,991	−10,282	−4,879	−620	−4,058	−86,821
Employees at 30 June—										
Tram and bus	number	6,786	4,540	1,440	1,695	2,109	651	114	511	17,846
Accidents—										
Tram and bus(*d*)—										
Persons killed	number	4	15	1	..	1	..	1	..	22
Persons injured	,,	n.a.	420	290	314	422	68	2	19	(*e*)1,535

(*a*) Gauge 1435 mm throughout. (*b*) Excludes government grants. (*c*) Includes provision of reserves for depreciation, etc., where possible. (*d*) Excludes accidents to employees. (*e*) Excludes New South Wales. Minus sign (−) denotes deficit.

TRAM AND BUS SERVICES: GOVERNMENT AND MUNICIPAL

		1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Route-kilometres at 30 June—						
Tram	kilometres	225	228	227	228	228
Bus	”	10,495	10,890	11,780	11,859	11,217
Vehicle kilometres—						
Tram	'000	25,180	25,119	24,555	24,516	24,945
Bus	”	170,769	172,866	179,702	187,797	190,131
Rolling stock at 30 June—						
Tram	number	722	734	734	729	765
Bus	”	4,437	4,442	4,761	4,967	5,007
Passenger journeys—						
Tram	'000	104,558	106,333	110,791	112,329	107,375
Bus	”	398,421	410,139	417,513	(*a*)416,160	406,163
Gross revenue(*b*)—						
Tram and bus	$'000	91,015	95,171	105,149	112,690	121,420
Working expenses(*c*)—						
Tram and bus	$'000	103,274	117,598	146,655	187,787	208,241
Net revenue—						
Tram and bus	$'000	−12,260	−22,426	−41,506	−75,098	−86,821
Employees at 30 June—						
Tram and bus	number	17,545	17,256	17,549	17,829	17,846
Accidents—						
Tram and bus(*d*)—						
Persons killed	number	22	30	10	14	22
Persons injured	”	2,275	2,732	2,587	(*e*)1,245	(*e*)1,535

(*a*) Excludes Northern Territory. (*b*) Excludes government grants. (*c*) Includes provision of reserve for depreciation, etc., where possible. (*d*) Excludes accidents to employees. (*e*) Excludes New South Wales. Minus sign (—) denotes deficit.

MOTOR VEHICLES

Arrangements for the registration of motor vehicles and the licensing of drivers and riders are not uniform throughout Australia, since they are the function of a separate authority or authorities in each State and Territory. Particulars of registrations, licences, fees payable, etc., in each State and Territory at 30 June 1977 are shown in *Motor Vehicle Registrations*, 1976–77, (9304.0).

Tables in this section include vehicles owned by private individuals, local government authorities, State Governments, and the Australian Government (excluding those belonging to the defence services).

Survey of motor vehicle usage

A survey was conducted throughout Australia in late 1976 by the Australian Bureau of Statistics for the purpose of gathering information on the usage of motor vehicles. Previous surveys were conducted in 1963 and 1971. The owners of approximately 53,000 vehicles other than buses were approached for information relating to the usage of their vehicles over the twelve months ended 30 September 1976. The framework from which the sample was drawn was obtained from the motor vehicle registration authorities in all States and Territories. The survey was based on respondents' recollection of their usage of the selected vehicles over their period of ownership during the survey year.

The main purpose of the survey was to determine the total distance travelled by vehicles, classified according to area and purpose of travel. Information was also obtained from the survey on: (i) tonne-kilometres; (ii) average load carried; (iii) vehicle usage (i.e. for hire and reward, ancillary or other); (iv) main type of operation; (v) fuel consumption; (vi) occupant-kilometres; and (vii) driver characteristics.

The following table shows, for Australia, total annual kilometres travelled for the twelve months ended 30 September 1976 classified by vehicle type and purpose of travel. The percentage standard errors (S.E.%) indicate the extent to which the estimates can vary by chance because only a sample and not the total vehicle population was enumerated. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained from a comparable complete enumeration, and about nineteen chances in twenty that the difference will be less than two standard errors. For example, if an estimate of 3,000 million kilometres has a standard error of 5 per cent (i.e. 150 million kilometres), then there would be approximately two chances in three that a comparable complete collection would give a figure within the range of 2,850 million kilometres to 3,150 million kilometres and about nineteen chances in twenty that the figure would be within the range of 2,700 million kilometres to 3,300 million kilometres.

TOTAL ANNUAL KILOMETRES BY VEHICLE TYPE AND PURPOSE OF TRAVEL, TWELVE MONTHS ENDED 30 SEPTEMBER 1976(P)

	Laden business		*Unladen business*		*Total business(a)*		*Paid to and from work*		*Unpaid to and from work*		*Private*		*Total*	
Type of vehicle	*million kilo-metres*	*S.E. %*	*million kilo-metres*	*S.E. %*	*million kilo-metres*	*S.E. %*	*million kilo-metres*	*S.E. %*	*million kilo-metres*	*S.E. %*	*million kilo-metres*	*S.E. %*	*million kilo-metres*	*S.E. %*
Cars and station wagons .	..		..		16,023.7	3.9	2,452.9	6.4	16,234.4	2.6	45,540.2	1.4	80,279.3	1.2
Motor cycles .	..		..		171.9	13.9	46.7	21.1	610.9	7.9	812.7	8.1	1,642.3	5.4
Utilities and panel vans .	4,105.2	4.7	1,923.6	8.1	6,378.6	4.5	350.8	20.6	1,728.7	7.1	3,845.6	6.2	12,303.9	2.6
Rigid trucks .	3,768.1	1.3	1,730.9	2.1	5,503.6	1.5	51.2	10.1	195.1	6.3	278.4	7.3	6,029.5	1.4
Articulated trucks . .	1,398.6	0.8	578.4	1.1	1,978.5	0.8	4.9	11.2	21.0	4.9	4.3	14.5	2,008.8	0.8
Other truck type vehicles .	..		..		230.9	15.4	2.6	32.2	29.4	12.6	164.0	9.4	426.8	9.0
Total .	**9,271.9**	**2.1**	**4,232.8**	**3.8**	**30,287.3**	**2.3**	**2,908.9**	**5.9**	**18,819.5**	**2.3**	**50,645.1**	**1.4**	**102,690.6**	**1.0**

(*a*) Includes the total kilometres travelled for business purposes of cars, station wagons, motor cycles and utilities and panel vans predominantly used for private purposes. The dissection of business travel into laden/unladen was not sought for these vehicles.

Motor vehicles on register

Details of motor vehicles on the register are compiled by up-dating motor vehicle census data from information made available by the various motor vehicle registration authorities in the States and Territories. Censuses of motor vehicles have been conducted in respect of 31 December 1955 and 1962, and 30 September 1971 and 1976. At these census dates considerably greater information concerning the particulars shown in the tables following is available. Final detailed results of the 1976 census will be published in separate census bulletins for each State and Territory and for Australia.

A revised classification of motor vehicles has been adopted for publication of statistics of motor vehicle registrations from 1 July 1976. The principal difference between this classification and that which it replaces involves the categories utilities, panel vans, trucks and other truck type vehicles. The principle of accepting vehicle-type data as recorded by the registration authority has also been accepted. Consequently, figures shown from July 1976 for these categories are not strictly comparable with data for previous periods.

MOTOR VEHICLE CENSUS: 30 SEPTEMBER 1976 (PRELIMINARY)

('000)

				Trucks					
State or Territory	*Motor cars and station wagons*	*Utilities*	*Panel vans*	*Rigid*	*Articu-lated*	*Other truck type vehicles*	*Buses*	*Motor cycles*	*Total (a)*
New South Wales .	1,712.6	131.8	108.2	115.4	13.1	7.9	11.1	94.4	2,194.6
Victoria . .	1,476.7	105.2	47.1	119.1	9.8	4.7	6.8	52.5	1,821.9
Queensland . .	722.9	87.8	34.7	92.7	5.9	2.6	3.7	72.8	1,023.0
South Australia .	509.2	41.4	19.6	36.3	5.2	4.1	3.2	31.8	650.7
Western Australia .	441.8	54.4	34.1	42.9	3.4	3.8	3.3	28.0	611.5
Tasmania . .	158.7	17.0	8.3	10.3	1.2	1.1	1.7	6.5	204.8
Northern Territory.	18.1	7.4	1.9	1.9	0.3	0.2	0.2	2.6	32.7
Australian Capital Territory . .	79.9	4.6	4.7	2.5	0.1	0.1	0.9	3.7	96.4
Total . .	**5,119.9**	**449.6**	**258.4**	**421.1**	**38.9**	**24.3**	**31.0**	**292.3**	**6,635.6**

(*a*) Excludes tractors, plant and equipment, caravans and trailers.

MOTOR VEHICLES ON REGISTER, BY TYPE OF VEHICLE AUSTRALIA

('000)

30 June	*Motor cars and station wagons*	*Utilities, trucks, panel vans, other truck type vehicles and buses*	*Motor cycles*	*Total vehicles*
1972	4,147.3	998.0	180.2	5,325.1
1973	4,376.2	1,047.5	210.4	5,634.1
1974	4,627.2	1,099.9	259.1	5,986.1
1975	4,895.8	1,157.8	279.3	6,333.0
1976	5,124.1	1,240.6	295.7	6,660.3
1976(*a*)	5,119.9	1,223.4	292.3	6,635.6

(*a*) 30 September 1976 Motor Vehicle Census figures.

MOTOR VEHICLES(*a*) ON REGISTER PER 1,000 OF POPULATION STATES AND TERRITORIES

30 June	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1972	390.3	401.4	406.8	429.4	434.6	427.7	321.9	452.4	404.3
1973	406.9	416.6	432.4	449.1	450.1	442.3	348.2	486.1	421.1
1974	423.6	436.8	445.1	467.2	471.4	460.5	367.4	519.4	440.2
1975	441.7	456.8	452.7	493.0	496.7	484.0	510.5	549.6	459.9
1976	448.3	475.1	493.3	508.1	523.1	503.9	602.6	572.6	478.6
1976(*b*)	446.0	485.3	483.6	514.7	519.9	501.8	317.8	470.9	475.8

(*a*) Excludes tractors, plant and equipment, caravans and trailers. (*b*) 30 September 1976 Motor Vehicle Census figures.

Registrations of new motor vehicles

Particulars of registrations of new motor vehicles are shown by type of vehicle in monthly bulletins, and by type and make of vehicle in quarterly and annual bulletins of Motor Vehicle Registrations.

In these statistics 'registrations' mean registrations processed by the motor vehicle registration authorities in the States and Territories during the period.

A revised classification of motor vehicles has been adopted for publication of statistics of new motor vehicle registrations from 1 July 1976. The principal difference between this classification and that which it replaces involves the categories utilities, panel vans, trucks and other truck type vehicles. The principle of accepting vehicle-type data as recorded by the registration authority has also been accepted. Consequently, figures shown from July 1976 are not strictly comparable with data for previous periods.

REGISTRATIONS OF NEW MOTOR VEHICLES, BY TYPE OF VEHICLE

State or Territory and year	*Motor cars*	*Station wagons*	*Utilities*	*Panel vans*	*Trucks*		*Other truck type vehicles*	*Buses*	*Total (excludes motor cycles)*	*Motor cycles*
					Rigid	*Articulated*				
1976–77—										
New South Wales	123,025	29,077	14,030	14,094	11,964	1,281	903	1,043	195,417	16,800
Victoria	98,301	19,493	9,398	7,952	8,402	1,210	812	777	146,345	7,645
Queensland	51,651	11,913	12,283	6,151	5,401	670	203	384	88 656	12,790
South Australia	37,230	7,317	3,638	3,156	3,229	919	364	315	56,168	6,081
Western Australia	35,438	8,925	5,490	5,552	5,243	429	247	401	61,725	3,887
Tasmania	12,023	2,497	1,430	1,350	1,076	129	175	101	18,781	1,428
Northern Territory	1,451	777	1,481	526	368	55	9	38	4,705	925
Australian Capital Territory	6,505	1,479	670	751	368	59	36	146	10,014	765
Australia	**365,624**	**81,478**	**48,420(*a*)**	**39,532(*a*)**	**36,051(*a*)**	**4,752(*a*)**	**2,749(*a*)**	**3,205**	**581,811**	**50,321**
1975–76	380,713	73,924	43,500	38,296	39,574	4,139	474	3,743	584,363	60,017
1974–75	433,244	69,476	45,151	36,647	32,675	3,545	409	3,040	624,187	67,563
1973–74	407,983	57,007	41,848	29,352	29,878	3,753	398	2,465	572,684	85,249
1972–73	373,876	55,863	41,144	28,136	29,176	3,364	365	2,215	534,139	65,551

(*a*) Not directly comparable with previous figures.

Drivers' and riders' licences

At 30 June 1977, the numbers of licences in force to drive or ride motor vehicles were: New South Wales, 2,722,246; Victoria, 2,032,520; South Australia, 674,117; Western Australia, 621,288; Tasmania, 213,053; Northern Territory, 29,595; Australian Capital Territory, 128,000. Particulars are not available for Queensland.

ROAD TRAFFIC ACCIDENTS

Compulsory fitting and use of seat belts and protective helmets in Australia

Information on the compulsory fitting and use of seat bealts and protective helmets in Australia is given in Year Book No. 61, page 395.

Accidents involving casualties, persons killed, persons injured

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(*a*): NUMBER OF ACCIDENTS, PERSONS KILLED OR INJURED, 1976

				Per 100,000 of mean population			*Per 10,000 motor vehicles registered(b)*		
State or Territory	*Number of accidents*	*Persons killed*	*Persons injured*	*Number of accidents*	*Persons killed*	*Persons injured*	*Number of accidents*	*Persons killed*	*Persons injured*
New South Wales .	27,393	1,264	37,327	557	26	760	125	6	170
Victoria . .	12,680	938	17,653	338	25	471	71	5	99
Queensland . .	7,814	569	10,405	370	27	493	79	6	105
South Australia .	8,090	307	11,082	641	24	878	126	5	173
Western Australia .	5,287	308	7,059	452	26	603	87	5	116
Tasmania . .	1,603	108	2,323	393	27	570	79	5	114
Northern Territory	582	51	814	572	50	800	169	15	237
Australian Capital Territory . .	833	38	1,145	410	19	563	89	4	123
Australia .	**64,282**	**3,583**	**87,808**	**462**	**26**	**631**	**98**	**5**	**134**

(*a*) Accidents reported to the police which occurred in public thoroughfares and which resulted in death within thirty days or in bodily injury to an extent requiring surgical or medical treatment. (*b*) Average number of motor vehicles (excluding tractors, plant and equipment) on register.

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(*a*): NUMBER OF ACCIDENTS, PERSONS KILLED OR INJURED

									Total		
Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Number*	*Per 100,000 of mean population*	*Per 10,000 motor vehicles registered(b)*
Accidents involving casualties—											
1972 . . .	27,365	14,757	7,863	8,116	4,909	1,371	592	777	65,750	506	123
1973 . . .	29,308	14,485	8,643	9,267	5,404	1,479	711	854	70,151	533	124
1974 . . .	29,853	12,542	8,086	9,469	4,742	1,393	575	813	67,473	504	112
1975 . . .	28,217	12,514	8,241	8,793	5,104	1,496	554	869	65,788	486	104
1976 . . .	27,393	12,680	7,814	8,090	5,286	1,603	582	833	64,281	462	98
Persons killed—											
1972 . . .	1,092	915	572	312	340	106	53	32	3,422	26	6
1973 . . .	1,230	935	638	329	358	105	55	29	3,679	28	7
1974 . . .	1,275	806	589	382	334	111	44	31	3,572	27	6
1975 . . .	1,288	910	635	339	304	122	64	32	3,694	27	6
1976 . . .	1,264	938	569	307	308	108	51	38	3,583	26	5
Persons injured—											
1972 . . .	36,814	20,646	10,788	10,997	6,751	1,968	795	1,007	89,766	691	168
1973 . . .	39,294	20,011	11,660	12,625	7,377	2,103	1,012	1,122	95,204	723	169
1974 . . .	40,429	17,539	10,627	12,725	6,277	1,911	788	1,042	91,338	683	152
1975 . . .	38,141	17,437	11,019	12,020	6,832	2,137	789	1,124	89,499	661	141
1976 . . .	37,327	17,653	10,405	11,082	7,058	2,323	814	1,145	87,807	631	134

(*a*) *See* footnote (*a*) to previous table. (*b*) *See* footnote (*b*) to previous table.

Types of road user killed or injured

Responsibility for cause of accident is not indicated by this classification.

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): PERSONS KILLED OR INJURED, TYPES OF ROAD USER INVOLVED, 1976

Type of road user	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
				PERSONS KILLED					
Drivers of motor vehicles	455	358	196	116	107	44	21	12	1,309
Motor cyclists . .	135	90	83	41	32	13	7	7	408
Pedal cyclists . .	19	37	16	9	7	4	1	. .	93
Passengers (all types)(*b*) .	395	261	184	86	101	35	17	15	1,094
Pedestrians . . .	259	190	89	55	59	12	5	3	672
Other classes(*c*) . .	1	2	1	. .	2	. .	. .	1	7
Total . . .	**1,264**	**938**	**569**	**307**	**308**	**108**	**51**	**38**	**3,583**
				PERSONS INJURED					
Drivers of motor vehicles	14,131	6,950	3,716	4,249	2,932	969	264	468	33,679
Motor cyclists . .	4,239	1,648	1,730	1,622	764	246	139	178	10,566
Pedal cyclists . .	842	706	384	566	249	29	20	65	2,861
Passengers (all types)(*b*) .	13,720	6,454	3,807	3,846	2,434	887	322	364	31,834
Pedestrians . . .	4,335	1,870	763	792	655	192	69	70	8,746
Other classes(*c*) . .	60	25	5	7	24	. .	. .	. .	121
Total . . .	**37,327**	**17,653**	**10,405**	**11,082**	**7,059**	**2,323**	**814**	**1,145**	**87,808**

(*a*) Accidents reported to the police which occurred in public thoroughfares and which resulted in death within thirty days or in bodily injury to an extent requiring surgical or medical treatment. (*b*) Includes pillion riders. (*c*) Includes bystanders, tram-drivers, riders of horses and drivers of animal-drawn vehicles.

Age groups of persons killed or injured

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): PERSONS KILLED OR INJURED BY AGE GROUP, 1976

Age group (years)	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
				PERSONS KILLED					
Under 5	47	23	20	10	7	. .	2	2	111
5 and under 7 . .	28	19	13	6	5	1	1	. .	73
7 ,, ,, 17 . .	89	88	54	25	29	19	6	5	315
17 ,, ,, 21 . .	246	166	132	59	71	29	11	3	717
21 ,, ,, 30 . .	277	210	105	56	56	22	11	17	754
30 ,, ,, 40 . .	141	86	61	27	42	9	7	3	376
40 ,, ,, 50 . .	100	82	50	17	23	6	8	5	291
50 ,, ,, 60 . .	130	84	44	38	27	7	3	. .	333
60 and over . . .	201	169	90	69	46	15	2	3	595
Not stated . . .	5	11	. .	. .	2	. .	. .	. .	18
Total . . .	**1,264**	**938**	**569**	**307**	**308**	**108**	**51**	**38**	**3,583**
				PERSONS INJURED					
Under 5	1,341	493	323	278	200	51	38	38	2,762
5 and under 7 . .	766	353	202	148	150	38	22	19	1,698
7 ,, ,, 17 . .	4,362	1,968	1,326	1,605	732	347	85	141	10,566
17 ,, ,, 21 . .	8,218	3,842	2,763	2,430	1,629	704	160	286	20,032
21 ,, ,, 30 . .	8,793	4,137	2,478	2,213	1,705	515	274	336	20,451
30 ,, ,, 40 . .	4,380	1,967	1,039	941	718	209	105	117	9,476
40 ,, ,, 50 . .	3,243	1,473	760	748	499	160	59	95	7,037
50 ,, ,, 60 . .	2,768	1,255	584	642	402	134	30	49	5,864
60 and over . . .	3,006	1,413	748	654	457	155	23	44	6,500
Not stated . . .	450	752	182	1,423	567	10	18	20	3,422
Total . . .	**37,327**	**17,653**	**10,405**	**11,082**	**7,059**	**2,323**	**814**	**1,145**	**87,808**

(*a*) *See* footnote (*a*) to previous table.

ROADS*

An article dealing with the development of roads in Australia is given in Year Book, No. 60, pages 385–93.

Summary of roads used for general traffic

Proclaimed or declared roads. The table following is a summary of the roads proclaimed or declared under the Acts of the several States relative to the operations of the central road authorities, and shows the lengths of various classes proclaimed or declared as at 30 June 1976. The central road authority in each State assumes responsibility under the Act for the whole, or a proportion, of the cost of construction and/or maintenance of these roads, the extent varying from State to State and with the class and locality of the roads. Before proclamation of a main road, consideration is given, in general, to the following points: availablity of funds; whether the road is, or will be, within one of several classes of main trunk routes; the value of the roads as connecting links between centres of population or business; whether the district is, or will be, sufficiently served by railways. Provision is also made in some States for the declaration of roads other than main roads. The absence of a particular class in any State does not necessarily imply that there are no roads within that State that might be so classified; the classes are restricted only to roads proclaimed or declared under the Acts. A further point to make is that, through various causes (e.g. insufficiency of funds, man-power or materials), construction or maintenance may not keep pace with gazettal of roads, and, therefore, the condition of a road may not match its status.

PROCLAIMED OR DECLARED ROADS: LENGTHS, STATES, 30 JUNE 1976
(Kilometres)

Class of road	*N.S.W.*	*Vic.(a)*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
State highways	10,476	(b)7,259	10,170	13,564	12,798	1,941	105,493
Trunk roads	7,080	14,577	130			..	
Ordinary main roads	18,317		8,116			1,065	
Total main roads	*35,873*	*21,836*	*18,416*	*13,564*	*12,798*	*3,006*	*105,493*
Secondary roads	(c)285	..	(d)13,760	..	8,251	292	22,588
Development roads	3,608	..	7,607	..	..	198	11,413
Tourist roads	395	795	..	..	..	115	1,305
Other roads	2,594	(e)1,039	..	..	..	..	3,633
Total other roads	*6,882*	*1,834*	*21,367*	..	*8,251*	*605*	*38,939*
Grand total	**42,755**	**23,670**	**39,783**	**13,564**	**21,049**	**3,611**	**144,432**

(a) As from 1 July 1974 the Country Roads Board acquired the road making powers, roads and relevant staff of the Melbourne and Metropolitan Board of Works. (b) Includes 223 kilometres of freeways constructed by the Country Roads Board. (c) Metropolitan only. (d) Includes mining access roads, farmers' roads and tourist tracks. (e) Forest roads.

Total roads. The following table represents an attempt to classify all the roads open for general traffic in Australia, at the latest dates available, according to States and Territories and to certain broad surface groups. The figures in the table for the States are obtained from the Deputy Commonwealth Statistician in each State, and are derived mainly from local government sources.

ALL ROADS OPEN FOR GENERAL TRAFFIC
LENGTHS, STATES AND TERRITORIES, 30 JUNE 1976
(Kilometres)

Surface of roads	*N.S.W.(a)*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*(a)Total*
Bitumen or concrete	66,878	56,693	41,099	17,843	31,797	7,129	4,907	1,518	227,864
Gravel, crushed stone or other improved surface	65,499	45,845	30,176	21,180	31,579	13,473	1,750	370	209,872
Formed only	41,920	28,060	61,248	24,392	45,808	726	5,476	42	405,532
Cleared only	14,689	28,962	56,371	37,026	52,794		8,018	..	
Total	**188,985**	**159,560**	**188,894**	**100,441**	**161,979**	**21,328**	**20,151**	**1,930**	**843,268**

(a) Excludes 20,286 kilometres of road dedicated but not trafficable.

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* Includes bridges.

Expenditure on roads and bridges

Primary responsibility for the construction and maintenance of roads and bridges rests with State and local authorities. In each State there exists a central road authority or a government department which undertakes construction, reconstruction and maintenance of declared 'main' and 'developmental' roads, and which administers the distribution of funds to local authorities and supervises and co-ordinates road construction throughout the State. Provision of roads and bridges has always been one of the principal functions of local authorities, and these authorities still account for a significant proportion of construction and maintenance activity (*see* Chapter 22, Public Finance). However the relative importance of the contribution of local authorities has tended to decline in recent years, reflecting in part a reassessment of priorities in allocations of road finance. The Commonwealth Government is concerned with construction and maintenance of roads and bridges in the Northern Territory and Australian Capital Territory and roads of access to Commonwealth Government property in the various States; but the Commonwealth Government's most significant contribution to government activity in this field is in the assistance given to the States in the form of specific purpose capital grants, which constituted about 34 per cent of the total outlay by State and local authorities on roads and bridges in 1975–76.

In what follows, figures are provided of expenditure on road transport by all public authorities and of Commonwealth Government grants for road purposes, and an account is given of the activities of the principal authorities concerned with roads and bridges in each State.

All public authorities

The figures given in the following table provide an approximate measure of the aggregate net expenditure on roads and bridges by Commonwealth Government, State and local authorities in recent years. Expenditure on roads by those authorities whose primary activity is directed towards functions other than roads, e.g. electricity, forestry, housing, etc., is not included. The figures cover expenditure on the construction, reconstruction and maintenance of roads and bridges, and on direct administration. Debt charges are not normally classified by function and are therefore excluded. Because a satisfactory and consistent distinction between new construction and maintenance cannot be made with existing data, all expenditure on roads and bridges is treated as capital expenditure.

ALL PUBLIC AUTHORITIES: GROSS FIXED CAPITAL EXPENDITURE
ROAD SYSTEMS
($ million)

Year	Commonwealth Government authorities	State and local authorities						All public authorities
		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	
1971–72	19	239	170	110	61	75	23	696
1972–73	24	272	171	127	68	80	24	765
1973–74	26	304	198	142	68	84	26	848
1974–75	29	389	265	192	85	99	39	1,098
1975–76	34	511	319	213	106	112	58	1,352

Commonwealth Government Grants

The following table shows the allocations to the States of Commonwealth grants for road construction, maintenance, repair and other works connected with transport for each of the years 1971–72 to 1975–76. Prior to 1974–75 these grants were provided under the various Commonwealth Aid Roads Acts, and since 1974–75 under the *National Roads Act*, the *Roads Grant Act*, and the *Transport (Planning and Research) Act*.

COMMONWEALTH GRANTS TO THE STATES FOR ROAD SYSTEMS
($'000)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
1971–72	74,500	49,820	45,360	25,500	39,250	10,820	245,250
1972–73	85,590	57,240	52,110	28,000	43,910	12,150	279,000
1973–74	98,270	65,720	59,830	31,000	48,030	13,950	316,800
1974–75	115,792	75,951	75,372	31,888	50,449	18,585	368,037
1975–76	136,232	91,989	90,049	41,484	62,225	20,097	442,076

New South Wales

Main roads administration is organised as a separate department under the control of a Commissioner. The responsibilities of the Department of Main Roads include works on main, secondary, developmental and tourist roads throughout the State, all roads in the unincorporated portion of the Western Division, and certain associated works, principally bridges and vehicular ferries, constructed and maintained from government funds. The Department co-operates with the municipal and shire councils in the work of constructing and maintaining the main roads system.

During 1971–72 changes were made in the method of financing road construction. The New South Wales Government decided that, as from 1 January 1972, the full cost of works carried out by the Department of Main Roads was to be met from the Department's own funds. Prior to this date, local councils in the County of Cumberland were required to meet half the cost of secondary roads construction and a proportion of the cost of tourist roads; and in country districts councils were required to meet a proportion of the cost of road and bridge construction and maintenance on roads other than State highways. The financial burden was therefore removed from councils in respect of works under the control of the Department of Main Roads. Councils continued to perform work on those roads for which they were responsible in the past.

The funds of the Department of Main Roads are derived principally from motor vehicle taxation, charges on heavy commercial goods vehicles under the *Road Maintenance (Contribution) Act*, 1958, grants under Commonwealth Aid Roads Acts and subsequent Acts (*see* page 513), other grants from the State or Commonwealth Governments, and proceeds of a levy on municipal and shire councils in the County of Cumberland in accordance with the *Main Roads Act*, 1924. The State Government also makes repayable advances for Main Roads Department works, and since 1963 the Commissioner for Main Roads has had the power (with the approval of the Governor on the recommendation of the Treasurer) to borrow moneys. The figures shown below represent the aggregate revenue and expenditure of the following funds: the County of Cumberland Main Roads General and Special Purposes Funds, the Country Main Roads General and Special Purposes Funds, and the Aid Roads Fund.

DEPARTMENT OF MAIN ROADS, NEW SOUTH WALES: REVENUE AND EXPENDITURE
($'000)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
REVENUE(*a*)					
Motor vehicle taxation, registration and licence fees	73,637	92,731	99,294	104,276	106,222
Grants—					
Commonwealth Road Grants	55,617	65,924	77,628	108,796	134,402
Other State and Commonwealth grants	655	1,886	2,048	8,821	13,572
Contributions by other departments and bodies	776	651	641	625	1,119
Local authorities' contributions—					
Under section 11 of *Main Roads Act*	5,890	311	167	156	104
Other	645	425	381	436	1,131
Sydney-Newcastle Expressway Toll	2,564	2,653	3,626	4,235	6,069
Other	1,020	1,336	1,111	1,862	1,903
Total	**140,804**	**165,915**	**184,896**	**229,206**	**264,523**
EXPENDITURE(*b*)					
Roads and bridges—					
Construction	98,055	113,987	126,761	155,451	194,939
Maintenance	26,364	29,956	35,333	50,531	60,323
Administration	9,413	9,949	11,184	12,804	13,771
Interest, exchange, etc., on debt	4,331	4,489	4,595	4,934	5,962
Other(*c*)	4,291	4,359	4,217	4,911	6,070
Total	**142,455**	**162,740**	**182,089**	**228,630**	**281,064**

(*a*) Excludes repayable advances by the State Government and private loans ($8,800,000 in 1971–72, $8,000,000 in 1972–73, $6,500,000 in 1973–74, $10,000,000 in 1974–75, and $15,250,000 in 1975–76) and transfers from Sydney Harbour Bridge Account for Expressway construction ($57,000 in 1971–72, $334,000 in 1972–73, $7,000 in 1973–74, $3,000 in 1974–75, and $7,000 in 1975–76). Expenditure from these amounts is fully reflected in expenditure. (*b*) Excludes debt redemption ($1,874,000 in 1971–72, $2,327,000 in 1972–73, $3,618,000 in 1973–74, $2,719,000 in 1974–75, and $3,298,000 in 1975–76). (*c*) Mainly purchase of assets not subject to annual depreciation charge. The purchase of other assets is omitted here because the depreciation charge for them is reflected each year in 'Roads and bridges'.

Toll facilities operated by the Department of Main Roads include the Sydney Harbour Bridge, the completed sections of the Sydney-Newcastle Expressway and the Southern Freeway.

The Sydney Harbour Bridge was opened for traffic on 19 March 1932, and has a main span of 503 metres with clearance for shipping of 52 metres. The deck, 49 metres wide, carries eight road traffic lanes, two railway tracks, one cycleway and one footway. During 1975-76, approximately 51 million private road vehicles, 23.7 million rail passengers and 11.2 million bus passengers crossed the bridge. Income from tolls during 1975–76 amounted to $5,427,000, including road tolls of $5,105,000, and a lump sum contribution of $322,000 for rail and bus passengers in lieu of the per capita toll charge.

The sections of the Sydney-Newcastle Expressway now open to traffic extend approximately 26 kilometres between Berowra and Calga. Total cost of the project was $36 million. Toll collections during the year ended 30 June 1976 amounted to $4,863,000. Southern Freeway was opened to traffic on 24 July 1975 and extends for approximately 23 kilometres between Waterfall and Bulli Pass. Total cost of the tollway was $30 million.

Victoria

With the object of improving the main roads of the State, the Country Roads Board was established by legislation passed in 1912. The principal duties of the Board are to determine which roads should be declared in the various classifications; to supervise the construction, reconstruction and maintenance of these roads; to inquire into the State's resources in road materials and the most effective methods of road construction and maintenance; and to recommend deviations in existing roads or the construction of new roads in order to facilitate communications or to improve the conditions of traffic.

The funds of the Country Roads Board are derived principally from motor registration fees, including a major portion of the fees credited for the Roads (Special Projects) Fund, a proportion of drivers' licence fees, payments by the Commonwealth Government under the Commonwealth Roads Acts and subsequent legislation (*see* page 513), road charges under the *Commercial Goods Vehicles Act*, repayments by municipalities, and grants and loans from the State Government. From 1 July 1974, the Country Roads Board acquired from the Melbourne and Metropolitan Board of Works the latter's road-making powers, road assets, etc., plus relevant staff, thus increasing the scope of the Country Roads Board's responsibilities. Some of the major works taken over and being completed by the Country Roads Board are the construction of the Eastern Freeway from Collingwood to Bulleen (due for completion by the end of 1977), the Mulgrave Freeway, and the Johnson Street Bridge in South Melbourne which will connect to the proposed West Gate Freeway.

Major works currently being carried out by the Country Roads Board include the construction of the Calder Freeway Keilor Section to bypass the township of Keilor, widening of the Nepean Highway between Elsternwick and Moorabbin, and extension of the Mornington Peninsula Freeway from Springvale Road, Chelsea, to join the Frankston Freeway.

COUNTRY ROADS BOARD, VICTORIA: RECEIPTS AND PAYMENTS
($'000)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
RECEIPTS					
Motor Car Act—registration and licence fees (less cost of collection)	34,296	35,428	37,537	41,985	50,827
Municipalities' payments	2,190	2,182	2,136	2,047	2,233
Commonwealth Roads Acts	45,300	49,785	55,274	(*a*)78,977	92,132
Roads (Special Projects) Fund	6,721	5,675	7,643	30,429	30,192
Road charges, Commercial Goods Vehicles Act	9,136	9,745	10,359	10,038	10,132
Loans from State Government	400	400	300	300	325
Grants from State Government	983	1,333	568	772	427
Other	713	703	860	1,247	1,525
Total	**99,739**	**105,251**	**114,677**	**165,795**	**187,793**
PAYMENTS					
Construction and maintenance of roads and bridges—					
State highways	22,113	18,044	18,974	26,445	30,972
Main roads	20,372	20,660	20,142	26,499	26,780
Freeways	18,345	23,857	30,391	49,352	54,983
Tourist roads	2,284	1,749	1,860	2,134	1,754
Forest roads	858	840	910	1,102	1,342
Unclassified roads	16,846	17,513	19,242	28,334	29,621
Other	120	130	177	124	230
Plant purchase	2,060	1,765	1,116	1,783	1,234
Buildings, workshops, etc.	331	641	565	806	313
Interest, debt redemption, etc.	2,584	2,612	2,619	2,688	2,793
Statutory payment to—					
Tourist Fund	658	686	709	751	840
Traffic Authority Fund	329	343	354	375	420
Transport Regulation Board	534	548	585	622	602
Administration and other	12,250	14,099	18,099	24,954	28,406
Total	**99,685**	**103,487**	**115,742**	**165,969**	**180,288**

(*a*) Includes $3,134,000 employment grants.

Queensland

The Department of Main Roads was constituted in February 1951 with the Commissioner of Main Roads as its permanent head. The duties of the Commissioner include the carrying out of surveys and investigations necessary to determine State highways, main developmental roads and secondary roads. The responsibility for building and maintaining these declared roads is also largely that of the Commissioner. Roads of purely local importance are constructed and maintained by local authorities. In many cases construction is financed by the State Government by means of Treasury loans. Other roads may be built by the Lands Department in order to open up areas of previously inaccessible or undeveloped country.

The funds of the Department of Main Roads are obtained chiefly from motor vehicle registration and collections, fees, etc., under the Transport Acts, grants from the Commonwealth Government (*see* page 513) and loans, grants and advances from the State Government. The total receipts and payments during each of the years 1971–72 to 1975–76 are shown in the following table.

DEPARTMENT OF MAIN ROADS, QUEENSLAND: RECEIPTS AND PAYMENTS
($'000)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
RECEIPTS					
Motor vehicle registration, Transport Acts collections, fees, etc.	26,886	29,303	31,802	33,650	48,536
Loans from State Government	500	1,750	1,400	5,800	1,869
Grants from State Government	183	313	200	1,422	1,121
Roads (Contribution to Maintenance) Act	4,862	5,194	5,420	5,108	5,101
Commonwealth (Roads Grants)	55,298	58,444	68,018	80,139	92,307
Maintenance repayments—local authorities	1,137	1,302	1,271	876	997
Hire, rent, sales of plant, etc.	6,517	7,413	8,012	9,761	10,496
Other	750	961	1,686	1,541	2,099
Total	**96,132**	**104,680**	**117,810**	**138,297**	**162,525**
PAYMENTS					
Permanent road works and surveys(*a*)	62,942	66,030	69,983	88,156	100,212
Maintenance of roads	13,189	13,574	18,608	25,554	29,731
Plant, machinery, buildings, etc. (including plant maintenance)	4,797	5,130	5,483	6,212	7,958
Loans—					
Interest	−108	−216	−241	−126	199
Redemption	847	798	765	743	736
Administration and other	14,947	17,617	21,846	19,908	21,380
Total	**96,614**	**102,933**	**116,444**	**140,447**	**160,215**

(*a*) Includes grants to local authorities for road purposes.

South Australia

The Highways Department is administered by the Commissioner of Highways who is empowered, subject to the approval of the Minister of Transport, to undertake the construction, maintenance and protection of the principal roads of the State, allocate grants to Councils for roadworks and supervise the expenditure of those grants, and assist the Councils to purchase road-making plant and to defray the cost of road-works. In addition, the Commissioner advises Councils on technical questions concerning the construction, maintenance or repair of roads. Funds of the Department are derived mainly from the Highways Fund (into which are paid the proceeds from motor vehicle registration and drivers' licences (less cost of collection), appropriations from loan funds, repayments of advances made to Councils, and contributions by the Bus and Tram Division of the State Transport Authority) and from grants from the Commonwealth Government (*see* page 513).

The following table shows particulars of receipts and payments, during the years 1971-72 to 1975-76, of funds controlled by the Highways Department.

HIGHWAYS DEPARTMENT, SOUTH AUSTRALIA: RECEIPTS AND PAYMENTS
($'000)

	1971-72	*1972-73*	*1973-74*	*1974-75*	*1975-76*
RECEIPTS					
Motor vehicle registration, licences, fees .	18,000	18,828	19,872	25,840	27,574
Commonwealth Roads Grants Acts . .	25,500	28,000	31,000	31,769	41,099
Other(*a*)	4,088	5,157	6,571	4,871	7,471
Total	**47,589**	**51,985**	**57,443**	**62,481**	**76,144**
PAYMENTS					
Construction and reconstruction of roads and bridges(*b*)	32,049	33,604	35,210	39,180	44,095
Maintenance(*a*)(*b*)	13,303	11,197	11,483	14,964	18,479
Recoups to Consolidated Revenue Fund—interest, debt redemption and exchange .	580	619	653	675	707
Advances to local and semi-government authorities	305	262	4	42	31
Stores, plant, machinery, suspense accounts, etc.(*c*)	3,816	3,967	4,808	4,651	6,642
General administration	..	2,638	3,191	3,908	4,048
Total	**50,053**	**52,287**	**55,348**	**63,420**	**74,001**

(*a*) Includes reimbursement works for Commonwealth Government. (*b*) Includes administration expenses. (*c*) Represents gross repayments less recoveries by charges to works on account of depreciation and materials used.

Western Australia

Work connected with road construction and maintenance and associated projects in Western Australia is undertaken by the State Government through the Main Roads Department, and by local government authorities throughout the State. The Department operates under the *Main Roads Act* 1930-1976 and is administered by a Commissioner of Main Roads who is responsible to the Minister for Transport. The Act makes provision for the construction and maintenance of public roads in the categories of highways, main and secondary roads, and other roads, and for the control of access to roads. Within its own district each local government authority is responsible for the provision and upkeep of roads other than those provided by the Main Roads Department. In addition, the local authorities are required by the *Main Roads Amendment Act* 1975 to maintain secondary roads within or along their boundaries.

Revenue for road works in Western Australia is derived principally from allocations made under Commonwealth roads grants (*see* page 513). Other sources of income for road works are all motor vehicle licence fees (other than recording fees), excess load permit fees and one half of drivers' licences which are paid to the Main Roads Trust Account under authority of the *Road Traffic Act* 1974-76. Further moneys for expenditure on road maintenance are available under the *Road Maintenance (Contribution) Act* 1965-76, the *Transport Commission Act* 1966-76 and from payments by local government authorities in respect of permanent works and the maintenance of highways, main and secondary roads.

Receipts and payments for the years 1971-72 to 1975-76 are shown in the following table.

MAIN ROADS DEPARTMENT, WESTERN AUSTRALIA: RECEIPTS AND PAYMENTS
($'000)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
RECEIPTS					
Motor vehicle registration fees, etc.	14,245	14,567	15,321	23,987	30,424
Commonwealth Government Grants—					
Commonwealth Roads Grants	39,250	43,910	48,030	50,195	62,058
States Grants (Beef Cattle Roads) Act	1,600	1,900	981	..	..
Other Grants	..	..	255	205	366
Road Maintenance (Contribution) Act	3,822	3,359	3,682	4,178	4,451
Recoups from other Government Departments and Local Authorities for works carried out	2,295	2,672	2,788	4,044	4,905
Other	434	461	477	487	3,022
Total	**61,646**	**66,870**	**71,534**	**83,096**	**105,225**
PAYMENTS					
Road construction and maintenance	44,887	47,111	45,675	54,726	62,981
Other road works—signals, traffic engineering, etc.	784	777	1,075	2,067	3,476
Statutory grants to Local Authorities	12,435	13,295	13,962	15,044	16,205
Administration, supervision, etc.	7,231	8,296	9,893	12,050	13,435
Other	328	410	304	324	338
Total	**65,665**	**69,889**	**70,910**	**84,211**	**96,435**

Tasmania

Under the *Roads and Jetties Act* 1935, the control of the construction and maintenance of roads and certain road-making plant was vested in the Minister for Lands and Works. Works authorised by the Minister in respect of roads classified as State highways, main roads, secondary roads and tourist and developmental roads are constructed by the Department of Public Works and financed from the State Highways Trust Fund, into which are paid the grants from the Commonwealth Government (*see* page 513), motor vehicle taxes and public vehicle fees. Loan funds are also authorised by Parliament for road purposes. Municipal councils contribute towards the cost of maintaining main and secondary roads in the classified system. The maintenance of roads not included in the classified system is the responsibility of municipal councils, but they are assisted with grants made available under the *Roads Grants Act*.

The following table gives a detailed analysis only of funds available to the State government and expenditure from the State Road Funds for the years 1971–72 to 1975–76.

STATE ROAD FUNDS; TASMANIA: RECEIPTS AND PAYMENTS
($'000)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
RECEIPTS					
Motor vehicle taxation, registration, licences, fees, fines, etc.	5,659	5,912	6,338	6,660	8,545
Commonwealth Roads Grants	10,820	12,150	13,950	18,620	20,097
State Loan Fund	930	540	710	936	633
Contributions by Local Authorities	17	19	17	18	19
Other	307	277	441	429	307
Total	**17,733**	**18,897**	**21,456**	**26,662**	**29,602**
PAYMENTS					
Construction and reconstruction of roads and bridges	12,960	13,810	15,757	18,936	24,161
Maintenance of roads and bridges	4,475	4,686	4,978	6,494	8,052
Planning and research	189	186	220	363	421
Total	**17,624**	**18,682**	**20,955**	**25,793**	**32,634**

National Association of Australian State Road Authorities

The National Association of Australian State Road Authorities (NAASRA) was established in 1934. The present member authorities are: Department of Main Roads, New South Wales; Country Roads Board, Victoria; Main Roads Department, Queensland; Highways Department, South Australia; Main Roads Department, Western Australia; Department of Main Roads, Tasmania; Commonwealth Department of Construction.

The Association's objectives are to provide a central organisation where, by co-operative effort, a uniform approach to the improvement, planning and development of the Australian road system can be achieved. National standards for road and bridge construction and maintenance and improved administrative and financial control methods are developed by committees of experienced staff from the authorities, with secretarial services provided by a small staff located in Sydney.

This Secretariat arranges publication of the policies and standards which are widely used by road authorities, local government and universities; co-operates with the Standards Association of Australia on the preparation of national codes of practice; and acts as an Australian centre for contact with overseas road bodies and for the circulation of standards published by them.

Road research is a continuing concern, and in 1959 the Association decided to set up and finance a separate national centre to conduct road research on behalf of its members. The Australian Road Research Board (ARRB) was duly established in 1960 as a company controlled by a Board consisting of the NAASRA members.

The Association regularly confers with the Commonwealth Department of Transport, the Bureau of Transport Economics and the Australian Transport Advisory Council on major road policies. As part of the Commonwealth Government's external aid program and in conjunction with the Department of Foreign Affairs, member authorities of the Association conduct engineering training courses for experienced engineers from African and Asian countries.

The Association is a member of the Permanent International Association of Road Congresses (PIARC) and of the Road Engineering Association of Asia and Australasia (REAAA).

Australian Road Research Board

The Australian Road Research Board (ARRB) is a non-profit-making company founded in 1960 by the National Association of Australian State Road Authorities (NAASRA), and now located at Vermont in Victoria. It is financed by Federal and State Government Road Authorities whose permanent heads form ARRB's Board of Directors. The Executive Director, a full-time employee of the Board, is responsible for administering the Directors' policies.

ARRB regularly undertakes and arranges road and road transport research over a comprehensive range of subjects and disseminates results to appropriate organisations, engineers and scientists involved in the design, location, construction, upkeep and use of roads. The Board also relies on advice from its Technical Committees in Bituminous Surfacings, Road Pavements, Human Factors, Local Government Engineering, Traffic Engineering and Transport Planning, and its Steering Committee of senior advisors.

ARRB disseminates road research information through its biennial conference, first held in 1962, and regular symposia, and through its publications which include the *Conference Proceedings*, a quarterly journal *Australian Road Research* and various reports arising out of its many research projects. The Board also maintains a unique library of road literature and operates an expanding computer-based information service called *Australian Road Index* which collects and collates all Australian road research findings. It also operates the International Road Research Documentation (IRRD) data base of OECD in Australia.

The Commonwealth Bureau of Roads

In June 1977, the Commonwealth Bureau of Roads was officially amalgamated with the Bureau of Transport Economics. (*See* section on the Bureau of Transport Economics at the beginning of this chapter.)

AIR TRANSPORT

Department of Transport

Control of air transport in Australia is exercised by the Department of Transport. The Department's jurisdiction covers Australia and areas of the Indian and Pacific Oceans. Year Books Nos. 16, 19 and 38 trace the establishment of air transport control in Australia and the appropriate Acts of Parliament and Regulations under which this control is exercised. Further details about air transport control and operations are given in the annual reports to the Commonwealth Parliament by the Minister for Transport.

Regular air services within Australia

Interstate services. The majority of scheduled interstate services with passenger and all-freight aircraft are provided by two airlines only: the private enterprise airline Ansett Airlines of Australia (a division of Ansett Transport Industries (Operations) Pty Ltd, which is a subsidiary of Ansett Transport Industries Ltd); and the Commonwealth Government-owned Trans-Australia Airlines (TAA). All principal routes are competitive, with both airlines providing equal capacities in accordance with legislation passed by the Commonwealth Parliament. The two principal Acts which establish the legislative basis of this controlled competition are the *Airlines Agreements Act* 1952 and the *Airlines Equipment Act* 1958. The Airlines Equipment Act established the machinery for the achievement and maintenance of comparable, but not necessarily identical, aircraft fleets between TAA and Ansett Airlines of Australia, and was designed to prevent the provision of excess aircraft capacity. The *Airlines Agreement Act* established the basis of control of the two-airline competitive system and extended this machinery until at least 1982.

In addition to purely interstate services, both Ansett Airlines of Australia and Trans-Australia Airlines operate non-competitive intrastate routes in Australia. The Ansett Airlines of Australia non-competitive routes radiate mainly from Melbourne, while those of Trans-Australia Airlines are located within Queensland.

At 30 June 1977, the Ansett Airlines of Australia fleet included twelve Boeing 727s, twelve DC-9s, twelve Friendships, four Electra freighters, three helicopters and one Twin Otter DHC-6. At the same date, Trans-Australia Airlines operated a fleet of eleven Boeing 727s, twelve DC-9s, four Friendships and four Twin Otter DHC-6.

Intrastate services. In addition to the intrastate services operated by Ansett Airlines of Australia and Trans-Australia Airlines there are a number of smaller regional airlines operating from Sydney (Ansett Airlines of New South Wales and East-West Airlines), Adelaide (Ansett Airlines of South Australia), Perth (MacRobertson Miller Airlines), and Alice Springs (Connair). With the exception of Connair, which provides regular service to outback homesteads and communities, all of these are concerned primarily with traffic moving to and from their respective capital city. Except for the independently-owned East-West Airlines and Connair, all regional airlines are divisions of Ansett Transport Industries (Operations) Pty Ltd. The larger aircraft used by these regional airlines are Fellowships and Friendships. Connair uses DC3s and Herons.

Commuter services. These are not airline services but regular flights by charter firms with small single and twin-engined aircraft operating to fixed and published timetables. They provide regular air links between many centres, towns and country areas which are either not served by the major airlines or have no direct air service with their capital or nearest major provincial city. The first commuter service approved was for Opal Air Pty Ltd, of Coober Pedy (S.A.), to operate between Adelaide and the South Australian opal fields. At 30 June 1977 fourty-one charter operators were operating commuter services in Australia. Details of the operations of these commuter services are excluded from the statistics shown in this section.

Scheduled domestic airline services. Statistics of all regular airline services are set out in the following table.

AIR TRANSPORT: OPERATIONS OF REGULAR INTERNAL SERVICES AUSTRALIA(*a*)

		1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Hours flown	number	248,774	256,435	281,611	282,706	270,928
Kilometres flown	'000	115,931	121,605	135,209	138,928	133,436
Passengers—						
Embarkations	number	6,629,316	7,502,892	8,857,654	9,393,104	9,315,141
Passenger-kilometres	'000	5,276,524	5,842,540	7,001,336	7,578,752	7,483,035
Freight—						
Tonnes uplifted	tonnes	89,883	94,425	112,654	107,813	106,061
Tonne-kilometres	'000	76,475	84,039	101,334	100,942	100,514
Mail—						
Tonnes uplifted	tonnes	10,137	10,114	9,916	9,613	9,708
Tonne-kilometres	'000	9,589	10,100	9,569	9,312	9,405

(*a*) Includes flights of all Australian-owned airlines, with the exception of those of Qantas Airways Limited, between airports located within Australia.

Internal airline passenger embarkation and disembarkation

The statistics set out in the next table have been compiled by aggregating all internal airline passenger traffic loaded and unloaded at each airport. They include passengers on flights between Australia and Papua New Guinea (which ceased on 16 September 1975) and Australia and Norfolk Island. At ports where through-passengers transfer between flights, such passengers are counted as embarking as well as disembarking passengers.

INTERNAL AIRWAYS PASSENGER EMBARKATIONS AND DISEMBARKATIONS AT PRINCIPAL AUSTRALIAN AIRPORTS

Airport	*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Sydney	3,694,498	4,162,659	4,679.513	4,953,051	4,788,086
Melbourne	2,861,896	3,226,294	3,876,877	4,037,585	4,125,932
Brisbane	1,448,920	1,658,043	2,078,812	2,218,780	2,119,538
Adelaide	1,046,840	1,154,384	1,374,645	1,494,675	1,454,917
Canberra	670.608	813,712	934,069	981,815	901,837
Perth	545.890	536,057	646,699	696,527	629,530
Hobart	227,016	282,676	382,636	375,769	403,759
Townsville	202,160	231,665	315,782	320,153	329,831
Coolangatta	188,917	243,994	278,044	300,854	314,780
Launceston	208,090	244,982	294,694	287,741	304,784
Cairns	182,300	204,414	251,847	266,620	275,439
Mackay	133,806	159,408	196,951	213,972	249,196
Darwin	131,703	141,696	182,319	241,003	208,806

International activity

International organisations. The International Civil Aviation Organization had a membership of 129 nations in June 1977. Australia has continued its position as a member of the Council, which it has held since ICAO was established in 1947. Further details will be found in Year Book No. 40 and earlier issues.

International agreements. Australia had air service agreements in force with twenty-five countries at 30 June 1977. Under these agreements Australia is granted rights to operate services between Australia to and through the countries in question; these rights are exercised by Australia's international airline Qantas. In return, the designated airlines of the other countries which are partners to these agreements are granted traffic rights in Australia. Australia also had air service arrangements granting traffic rights with six other countries at 30 June 1977.

International air services. At 30 June 1977, twenty-two overseas international airlines were operating regular scheduled air services to Australia. These were: Air-India (India), Air Nauru (Nauru), Air New Zealand (New Zealand), Air Niugini (New Guinea), Air Pacific (Fiji), Alitalia (Italy), British Airways Overseas Division (Britain), Canadian Pacific Air Lines (Canada), Cathay Pacific (Hong Kong), Deutsche Lufthansa (Federal Republic of Germany), Garuda (Indonesia), Japan Air Lines (Japan), JAT (Yugoslavia), KLM Royal Dutch Airlines (Netherlands), Singapore International Airlines (Singapore), Merpati Nusantara Airlines (Indonesia), Pan American World Airways (United States of America), Philippines Air Lines (Philippines), South African Airways (Republic of South Africa), Thai International (Thailand), Malaysian Airways (Malaysia) and Union de Transport Aeriens (France). Qantas, Australia's international airline, operates a fleet of twenty-seven aircraft of which seven are Boeing 707-338C jet aircraft and thirteen are Boeing 747B jet aircraft. All the shares in Qantas Airways Limited are owned by the Commonwealth Government.

International operations. The table following shows particulars of international airline traffic during 1975–76 moving into and out of an area which embraces Australia, Papua New Guinea, and Norfolk Island. These figures do not include traffic between Australia and Papua New Guinea and Norfolk Island.

AIR TRANSPORT: INTERNATIONAL AIRLINE TRAFFIC TO AND FROM AUSTRALIA(*a*), 1975–76

Type of traffic	*Aircraft movements*	*Passengers*	*Freight*	*Mail*
Traffic to Australia—			tonnes	tonnes
Qantas Airways Limited	4,314	640,294	15,790	912
Other airlines	7,344	772,844	28,429	4,044
All airlines	**11,658**	**1,413,138**	**44,219**	**4,956**
Traffic from Australia—				
Qantas Airways Limited	4,302	605,333	11,807	1,952
Other airlines	7,307	783,412	15,051	856
All airlines	**11,609**	**1,388,745**	**26,858**	**2,809**

(*a*) Australian mainland, and Papua New Guinea and Norfolk Island.

Statistics covering the operations of Australia's regular overseas services are shown in the following table. These operations include all stages of Qantas flights linking Australia with external territories and overseas countries, and stages external to Australia for flights of other Australian-owned airlines; they exclude flights over stages located within Papua New Guinea.

AIR TRANSPORT: OPERATIONS OF AUSTRALIA'S REGULAR OVERSEAS SERVICES

		1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Hours flown	number	91,357	87,548	90,293	86,231	85,839
Kilometres flown	'000	66,270	64,823	69,062	65,045	65,221
Passengers—						
Embarkations	number	885,548	1,054,929	1,295,457	1,418,541	1,488,858
Passenger-kilometres	'000	4,892,044	6,775,195	8,653,357	9,434,345	10,541,870
Freight—						
Tonnes uplifted	tonnes	20,961	23,239	27,328	29,974	33,417
Tonne-kilometres	'000	143,514	150,342	195,078	213,748	243,911
Mail—						
Tonnes uplifted	tonnes	2,841	2,791	2,912	2,950	2,997
Tonne-kilometres	'000	24,627	22,891	25,071	24,043	26,217

General aviation activity, which covers all non-airline operations such as charter, aerial work and private flying, has grown rapidly throughout Australia in recent years and is an important sector of the Australian aviation industry. In 1976–77 the general aviation hours flown chiefly with light aircraft totalled 1,257,000 compared with 262,548 hours flown by Australian airline aircraft. At 30 June 1977 aircraft employed in general aviation numbered 4,726.

Aerodromes

The number of aerodromes throughout Australia and its external territories at 30 June 1977 was 451. Eighty-three were owned by the Commonwealth Government and 368 by local authorities and private interests. Capital expenditure on aerodrome and building construction was $13.8 million in 1976–77. Maintenance expenditure on Commonwealth Government-owned aerodromes during 1976–77 was $4.6 million, and development and maintenance grants to licensed aerodromes participating in the Local Ownership Plan totalled $999,725.

Airways facilities

A total of 416 navigational aids were in service at 30 June 1977. The total includes 224 non-directional beacons (NDB), 102 distance measuring equipment (DME), 9 international distance measuring equipment (DMEI), 9 visual-aural ranges (VAR), 55 VHF omni-directional ranges (VOR), 16 instrument landing systems (ILS) and one twin locator approach system.

One hundred and fourty-two aerodromes are now equipped with night landing facilities. Eighty-one Australian-designed 'T' systems (T-VASIS) are operating. Seven long-range surveillance radars, two short range and nine secondary surveillance radars (seven civil, two military) are also in operation. There are twenty-seven fully-equipped Air Traffic Control Centres and fifty-three flight service units.

Air transport registrations, licences, etc., in force in Australia

At 30 June 1977 there were 4,871 aircraft registered in Australia. At 30 June 1977 there were also 36,462 pilots' licences in force, of which 17,035 were private pilots' licences, 3,619 commercial pilots' licences, and 15,808 student pilots' licences. Flight radio-telephone operators' licences numbered 25,808.

Accidents and casualties

AIR TRANSPORT: ACCIDENTS INVOLVING CASUALTIES(*a*)
AUSTRALIA(*b*)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Number	28	30	34	24	32
Persons killed	37	41	46	25	54
Persons seriously injured	23	8	19	16	24

(*a*) Accidents involving civil aircraft which resulted in death or serious injury. Excludes parachutists killed on contact with earth after an uninterrupted fall. (*b*) Excludes accidents outside Australia involving aircraft on the Australian register.

POSTAL, TELECOMMUNICATION AND RADIOCOMMUNICATION SERVICES

In this section, particulars for the Australian Capital Territory are included with those for New South Wales, and the South Australian figures include particulars for the Northern Territory, unless otherwise indicated. The Central Offices of the Postal and Telecommunications Department are located in Canberra, Melbourne and Sydney.

Postal and Telecommunications Department—General

Early in 1975, legislation was passed to establish two statutory authorities—the Australian Telecommunications Commission and the Australian Postal Commission—to take over the postal and telecommunications responsibility of the former Postmaster-General's Department from 1 July 1975. The residual functions of the former department remain with the Postal and Telecommunications Department, which was created from that date. These mainly involve the administration of the *Wireless Telegraphy Act* 1905 which concerns the licensing and management of the radio frequency spectrum. The new Department also took over (from the former Department of the Media) the responsibility for policy matters concerned with broadcasting.

The principal functions of the Department are to provide policy advice to the Minister on postal, telegraphic, telephonic, broadcasting, and other like services which are subject to legislation for which the Minister for Post and Telecommunications is responsible.

Since its establishment the Department has assumed other responsibilities, some of which are currently reflected in the *Wireless Telegraphy Act* 1905 and the *Broadcasting and Television Act* 1942.

The authorities responsible to the Minister for Post and Telecommunications have been established to provide within Australia a network of facilities which enable people and organisations:

to send letters, printed matter, parcels and money in Australia and overseas and to receive such items within Australia from overseas;
to converse by telephone in Australia and overseas;
to send and receive written messages, data, pictures and other visual matter by electrical means within Australia and to and from overseas;
to relay on the telecommunications network, radio and television broadcasts emanating within Australia and those on relay to and from overseas;
to plan and manage the radio frequency spectrum and regulate radio communications service;
to construct, maintain and operate the transmitters of the National Broadcasting and Television Service and the Radio Australia Service (*see* pages 534-537); and
to provide agency services for Australian and State Government Departments and other instrumentalities.

Australian Postal Commission

The Australian Postal Commission was established under the *Postal Services Act* 1975. It commenced operations on 1 July 1975 and trades under the name Australia Post.

The establishment of the Australian Postal Commission was accompanied by a complete reorganisation of the management of postal services in Australia. The Commission was given a charter to improve postal services whilst avoiding the large financial losses of previous years. The Postal Services Act sets specific financial objectives for the Commission designed to enable postal services to be operated on a business-oriented basis.

In accordance with the *Postal Services Act* 1975, the Australian Postal Commission is required to pursue, as far as practicable, a financial policy to secure revenue sufficient to meet all expenditure chargeable to revenue and provide at least half of its capital expenditure.

Since 1 July 1975, Australia Post has taken a number of initiatives to develop new services and maintain existing ones while at the same time maintaining competitive pricing. The initiatives include the introduction of Australia Post Courier services, a revision of parcel rates and the introduction of a concessional rate for domestic Christmas greeting cards.

In order to improve services further, the Commission has decided to decentralise the mail sorting and distribution network. The program involves the establishment of regional mail sorting centres in country and suburban areas in each State. A number have already been established.

The following tables indicate Australia Post's financial results, services and operations for 1976–77. Selected tables also show figures from 1972–73 to 1976–77.

AUSTRALIAN POSTAL COMMISSION: REVENUE AND EXPENDITURE, 1973 TO 1977

('000)

Year ended 30 June—	*1973*	*1974*	*1975*	*1976(a)*	*1977(a)*
Revenue—					
Mail services	207,277	224,246	274,073	402,221	435,790
Money order, postal order services	4,778	4,944	5,653	7,481	6,881
Commission on agency services	10,055	11,863	13,207	85,882	101,739
Other revenue	4,386	3,943	9,055	10,014	17,186
Total	**226,496**	**244,996**	**301,988**	**505,688**	**561,586**
Expenditure—					
Operating and general	173,265	203,185	262,006	354,995	395,675
Transportation	35,404	36,638	42,214	46,723	50,168
Depreciation, superannuation, long-service leave, interest	38,719	59,691	62,364	72,268	86,834
Total	**247,388**	**299,514**	**366,584**	**473,976**	**532,697**

(*a*) Figures not comparable with years prior to 1976 due mainly to changes in accounting for work done at post offices for Telecom Australia.

NOTE: Prior to 1975, postal services were operated by the Postmaster-General's Department.

AUSTRALIAN POSTAL COMMISSION: STATEMENT OF REVENUE AND EXPENDITURE FOR THE YEAR ENDED 30 JUNE 1977

($'000)

Revenue—	
Mail services	435,790
Postal order and money order services	6,881
Commission on agency services	101,739
Other revenue	17,186
Total	*561,596*
Expenditure—	
Operating and general	395,675
Transportation	50,168
Depreciation	9,341
Superannuation	54,253
Long Service Leave	16,383
Interest	6,877
Total	*532,697*
Accumulated surplus available for appropriation—	
Operating surplus	28,899
Accumulated surplus brought forward	20,335
Total	*49,234*
Appropriation—	
Transfer to fixed assets reserve	28,000
Total	*28,000*
Accumulated surplus carried forward	**21,234**

AUSTRALIAN POSTAL COMMISSION: SUMMARY OF TRANSACTIONS AFFECTING FIXED ASSETS, 1976–77

$A

Class of asset	*Value at 1 July 1976*	*Additions in the year*	*Asset expenditure written out*	*Value at 30 June 1977 (a)*
Land	21,514,053	1,514,408	55,665	22,972,796
Buildings	148,624,447	10,647,889	55,787	159,216,549
Motor vehicles	8,131,389	5,275,782	2,023,059	11,384,112
Plant	36,129,488	1,562,699	965,245	36,726,942
Equipment	12,330,707	2,129,176	431,198	14,028,685
Total value of fixed assets	*226,730,084*	*21,129,954*	*3,530,954*	*244,329,084*
Less depreciation				*50,247,937*
Net book value of fixed assets				**194,081,147**

(a) At cost.

AUSTRALIAN POSTAL COMMISSION: ANALYSIS OF TRANSACTIONS AFFECTING THE PROVISION FOR DEPRECIATION, 1976-77

$A

Class of asset	*Balance of provision at 1 July 1976*	*Depreciation provided for in 1976–77*	*Asset expenditure written out*	*Balance of provision at 30 June 1977*
Buildings	26,622,807	3,292,479	55,787	29,859,499
Motor vehicles	2,052,718	2,710,462	2,023,059	2,740,121
Plant	11,591,689	2,451,661	965,245	13,078,105
Equipment	4,114,895	886,515	431,198	4,570,212
Total value of provision	**44,382,109**	**9,341,117**	**3,475,289**	**50,247,937**

AUSTRALIAN POSTAL COMMISSION: PERSONS ENGAGED IN PROVIDING POSTAL SERVICES AT 30 JUNE 1977

	H.Q.	*N.S.W. (Incl. A.C.T.)*	*Vic.*	*Qld*	*S.A. (Incl. N.T.)*	*W.A.*	*Tas.*	*Aust. 1977*	*Aust. 1976*
Full time official staff (a)—									
Permanent	503	8,490	6,071	3,448	2,542	2,010	665	23,729	24,551
Temporary	7	4,126	2,295	594	249	340	124	7,735	8,047
Other staff(b)	..	4,482	2,690	246	1,230	977	407	12,002	12,833
Total	**510**	**17,098**	**11,056**	**6,258**	**4,021**	**3,327**	**1,196**	**43,466**	**45,431**

(a) 'Official Staff' are those whose employment is governed by the Postal Services Act 1975. (b) Includes persons who are not employed under the Postal Services Act, but who are employed on the basis of business transacted. Also included are persons or organisations who hold road mail service contracts with the Australian Postal Commission.

AUSTRALIAN POSTAL COMMISSION: MAIL DELIVERY NETWORK AND POST OFFICES AT 30 JUNE 1977

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust. 1977*	*Aust. 1976*
Contract road services . .	1,823	863	1,120	325	376	185	4,692	4,962
Households receiving mail(*a*)	1,668,499	1,208,363	625,208	442,151	367,123	125,440	4,434,784	4,362,639
Businesses receiving mail(*a*) .	147,000	102,082	59,887	35,681	33,170	10,503	388,323	394,076
Post offices—								
Official—								
At 1 July 1976 . .	514	333	215	171	162	46	1,441	.
Opened 1976–77 . .	3	2	3	1	3	1	13	
Closed 1976–77 . .	2	..	..	1	1	5	9	
At 30 June 1977 . .	515	335	218	171	164	42	1,445	..
Non-official—								
At 1 July 1976 . .	1,418	1,109	748	569	381	222	4,447	..
Opened 1976–77 . .	6	1	1	1	5	6	20	.
Closed 1976–77 . .	51	60	50	14	10	8	193	..
At 30 June 1977 . .	1,373	1,050	699	556	376	220	4,274	..
Total post offices .	1,888	1,385	917	727	540	282	5,719	.

(*a*) New South Wales and Australia figures not fully comparable with 1976 figures. For 1977 only private boxes and private bags actually let have been included.

AUSTRALIAN POSTAL COMMISSION: TOTAL POSTAL ARTICLES HANDLED

('000)

Year ended 30 June	*Posted for delivery within Australia*	*Posted for places abroad*	*Received from abroad*	*Total postal articles handled*	*Mail carried on domestic air services (included in total)(a)*	
					Articles	*Gross weight*
						kilograms
1973	2,531,026	124,214	172,347	2,827,587	550,478	6,794,426
1974	2,515,692	114,966	187,386	2,818,026	525,258	6,483,148
1975	2,371,014	112,996	198,232	2,682,242	521,010	6,430,717
1976	2,062,987	104,680	196,064	2,363,731	453,780	5,594,724
1977	2,047,930	104,796	204,861	2,357,587	522,313	6,448,310

(*a*) Postings within Australia and Territories for delivery therein.

AUSTRALIAN POSTAL COMMISSION: ORDINARY POSTAL ARTICLES(*a*)

('000)

	Standard letters				*Non-standard articles*			
Year ended 30 June	*Posted for delivery within Australia*	*Posted for places abroad*	*Received from abroad*	*Total articles*	*Posted for delivery within Australia*	*Posted for places abroad*	*Received from abroad*	*Total articles*
1975(*b*)	2,025,091	95,482	152,957	2,273,530	319,051	14,381	40,219	373,651
1976	1,782,575	88,984	154,488	2,026,047	261,090	13,282	36,440	310,812
1977	1,770,453	88,953	163,035	2,022,441	257,067	13,455	36,752	307,274
STATES—YEAR ENDED 30 JUNE 1977								
New South Wales . .	682,749	38,219	85,883	806,851	106,902	7,635	20,184	134,721
Victoria	519,142	26,644	52,039	597,825	83,590	3,671	10,071	97,332
Queensland	242,906	6,857	12,135	261,898	25,786	925	2,472	29,183
South Australia . . .	150,738	9,688	6,582	167,008	18,873	370	1,679	20,922
Western Australia . .	129,828	7,229	6,397	143,454	16,355	822	2,312	19,489
Tasmania	45,089	317	..	45,406	5,562	31	34	5,627

(*a*) Includes certified messenger delivery and priority paid mail. (*b*) Introduction of standard and non-standard categories from 1 October 1974—not comparable with previous years.

AUSTRALIAN POSTAL COMMISSION: REGISTERED ARTICLES(*a*) AND PARCELS(*b*)

('000)

Year ended 30 June	*Registered articles*				*Parcels*			
	Posted for delivery in Australia	*Posted for places abroad*	*Received from abroad*	*Total articles*	*Posted for delivery in Australia*	*Posted for places abroad*	*Received from abroad*	*Total articles*
1973	7,071	1,846	2,455	11,372	22,483	1,137	1,825	25,445
1974	7,063	1,898	2,761	11,722	22,323	1,041	1,972	25,336
1975	6,256	2,113	2,797	11,166	20,609	1,020	2,260	23,889
1976	3,877	1,533	2,807	8,217	15,442	884	2,332	18,658
1977	3,370	1,375	2,696	7,441	17,040	1,013	2,378	20,431
STATES—YEAR ENDED 30 JUNE 1977								
New South Wales	1,168	725	1,719	3,612	7,188	432	915	8,535
Victoria	862	444	790	2,096	4,766	342	787	5,895
Queensland	605	60	53	718	2,422	85	262	2,769
South Australia	363	62	35	460	1,332	73	225	1,620
Western Australia	248	82	99	429	1,076	66	160	1,302
Tasmania	124	2	..	126	266	15	29	310

(*a*) Totals include messenger delivery mail. (*b*) Totals include certified messenger delivery and priority paid mail.

AUSTRALIAN POSTAL COMMISSION: SPECIAL SERVICES: ARTICLES HANDLED

('000)

Year ended 30 June	Certified mail	Messenger delivery	Priority paid mail(*a*)
1973	6,116	1,716	1,354
1974	6,241	1,794	1,623
1975	6,288	1,572	1,462
1976	5,424	1,129	1,386
1977	4,927	1,007	1,449
STATES—YEAR ENDED 30 JUNE 1977			
New South Wales	1,436	598	633
Victoria	1,424	217	390
Queensland	1,009	81	135
South Australia	408	49	151
Western Australia	420	51	98
Tasmania	230	11	42

AUSTRALIAN POSTAL COMMISSION: MONEY ORDERS AND POSTAL ORDERS

Year ended 30 June	*Money orders issued*				*Postal orders issued*	
	For payment in Australia		*For payment overseas*			
	Number	*Value*	*Number*	*Value*	*Number*	*Value*
	'000	$'000	'000	$'000	'000	$'000
1973	4,705	139,665	447	5,231	16,787	57,475
1974	4,348	149,099	426	5,343	15,822	60,887
1975	4,161	177,023	361	5,645	14,547	60,566
1976	3,685	197,201	258	4,681	9,673	42,554
1977	3,610	218,513	198	4,162	7,100	33,075

AUSTRALIAN POSTAL COMMISSION:
SUMMARY OF AUSTRALIAN OVERSEAS AIRMAIL—ARTICLES
('000)

	Despatched overseas				*Received from overseas*			
Year ended 30 June	*Letters*	*Other articles*	*Parcels*	*Total articles*	*Letters*	*Other articles*	*Parcels*	*Total articles*
1973	78,901	5,767	202	84,870	122,572	9,002	632	132,206
1974	82,115	7,098	275	89,488	136,272	10,233	703	147,208
1975	81,987	7,256	301	88,544	140,961	10,495	816	152,272
1976	76,802	6,942	274	84,018	143,449	10,514	879	154,842
1977	75,464	6,829	337	82,630	150,868	11,019	937	162,824

Telecommunications services within Australia

The Australian Telecommunications Commission commenced operations or 1 July 1975, taking over the telecommunications functions of the former Postmaster-General's Department.

The functions of the Commission as set out in the *Telecommunications Act* 1975 are:

to plan, establish, maintain and operate telecommunications services within Australia;

to operate such other services as the Commission is authorised by this Act to operate;

to provide, at the request of the Australian Government, technical assistance outside Australia in relation to the planning, establishment, maintenance and operation of telecommunications services in countries outside Australia; and

to do anything incidental or conducive to the performance of any of the preceding functions.

Financial Results

The following tables show the earnings, expenses and funds situation for the first two years of the Commission's operations.

AUSTRALIAN TELECOMMUNICATIONS COMMISSION: REVENUE
($'000)

Year ended 30 June—	*1976*	*1977*
Telephone rentals	416,831	454,111
Telephone calls	839,580	967,331
Telephone connections and rearrangements	58,447	77,465
Telegrams	29,423	31,511
Telex rentals	14,090	16,219
Telex calls	17,417	20,021
Other earnings(*a*)	48,401	108,334
Total	**1,424,189**	**1,674,991**

(*a*) Major items within this classification are: Fees for advertisements in telephone directories, proceeds of sales of fixed assets, telephone service connection fees and telex call fees.

AUSTRALIAN TELECOMMUNICATIONS COMMISSION: EXPENDITURE
($'000)

Year ended 30 June—	*1976*	*1977*
Maintenance of plant	278,125	355,196
Operating	236,148	275,278
General and administrative	62,621	71,520
Accommodation	50,224	64,678
Depreciation	312,358	340,817
Superannuation	70,395	100,381
Long service leave	22,336	24,090
Interest	239,588	278,629
Total	**1,271,795**	**1,510,589**

AUSTRALIAN TELECOMMUNICATIONS COMMISSION: FUNDS STATEMENT

($ million)

At 30 June—	*1976*	*1977*
Source of funds—		
From the Commonwealth	392.0	215.0
From the public	..	193.7
From trading activities—		
Net trading result	152.4	164.4
Plus non-cash charges—		
Depreciation	312.4	340.8
Excess of liability over long service leave	10.0	7.1
Total	*866.8*	*921.0*
Application of funds—		
Increase in fixed assets and stores holdings	780.0	897.0
Less non-cash charges capitalised—		
Depreciation	−8.4	−9.2
Long service leave liability	−13.0	−15.6
Increase in current assets over current liabilities	108.2	48.8
Total	*866.8*	*921.0*

A brief history of the development of telecommunications in Australia is shown in Year Book No. 59, pages 378-82. Common internal telecommunication operations comprise telephone, telegram, telex and data services. The following tables give details of these services.

TELEPHONE SERVICES IN OPERATION AT 30 JUNE 1977

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Australia*
Type of service—							
Ordinary exchange services	1,316,158	1,045,980	448,259	317,270	263,638	96,680	3,487,985
Duplex services	..	..	2	2	..	..	4
Party line services	2,699	433	2,200	714	450	1	6,497
Private branch exchange	151,875	103,965	40,619	40,184	36,566	6,534	379,743
Public telephones	12,670	7,928	5,179	3,164	2,755	1,118	32,814
Connected to—							
Automatic exchanges	1,439,967	1,139,084	465,659	347,894	298,022	104,333	3,794,959
Manual exchanges	43,435	19,222	30,600	13,440	5,387	..	112,084
Located in—							
Metropolitan areas	850,910	728,242	225,091	228,523	203,503	42,069	2,278,338
Outer metropolitan areas	84,596	126,946	46,267	40,968	28,471	5,237	332,485
Country areas	547,896	303,118	224,901	91,843	71,435	57,027	1,296,220
Total	*1,483,402*	*1,158,306*	*496,259*	*361,334*	*303,409*	*104,333*	*3,907,043*

TELEPHONE INSTRUMENTS IN SERVICE

At 30 June—	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Australia*
1976	2,236,284	1,598,447	644,988	478,276	404,041	139,472	5,501,508
1977	2,376,900	1,701,769	688,024	487,469	436,033	144,711	5,834,906
Number per 100 population at 30 June 1977	46.2	45.2	32.4	35.5	36.8	35.4	41.7

LOCAL AND TRUNK LINE TELEPHONE CALLS

Year ended 30 June—	*1976*	*1977*
Effective paid local calls	3,720,000,000	3,924,000,000
Local calls per service	1,028	1,032
Trunk line calls	374,300,000	412,000,000
Trunk lines calls per service	103	108
Total calls	**4,094,300,000**	**4,336,000,000**

Subscriber Trunk Dialling (STD) facilities were introduced during the year 1961–62. For the year ended at 30 June 1977, 84 per cent of trunk calls were made by STD.

Telegrams

Telegrams can be lodged at any post office or telephone office or from any public telephone equipped for multi-coin operation. In addition, telegrams can be dispatched from any subscriber's telephone or telex service. The number of telegrams of various types transmitted within Australia is set out below.

TELEGRAM TRAFFIC

Year ended 30 June—	*1976*	*1977*
Ordinary	11,234,049	9,225,700
Urgent	292,018	172,149
Lettergrams	16,159	16,627
Meteorological	913,617	743,004
Service	474,449	240,289
Total telegrams	**12,930,292**	**10,397,769**

Telex

Particulars of the operations of the telex network, which are additional to the telegraph traffic shown above, are as follows.

TELEX NETWORK SERVICES AND INTERNAL CALLS

Year ended 30 June—	*Number of services*	*Internal calls during the year*
1976	17,047	27,036,000
1977	19,601	29,435,000

Further detailed statistics are contained in the Commission's Annual Reports.

Overseas telecommunications services

The Overseas Telecommunications Commission (Australia), which was established by the *Overseas Telecommunications Act* 1946, is the authority responsible for the establishment, maintenance, operation and development of telecommunication services between Australia and other countries, the external territories (mostly islands in the Pacific and Indian Oceans) and ships at sea.

Telephone (including International Subscriber Dialling), telex, public message telegram, phototelegram, switched data and leased circuit services are provided to many countries and places throughout the world by means of submarine cables, communication satellites and, in a decreasing number of cases, high frequency radio. Television services are provided to those countries with access to satellite communication facilities.

OTC is directed by five Commissioners appointed by the Governor-General. The chief executive is the General Manager, who is appointed by the Commission.

Details of overseas communication systems operating in Australia prior to 1946 and developments leading to the establishment of the Commission were published in Year Book No. 37, pages 220-4.

International consultation

OTC participates in the Commonwealth Telecommunications Organisation, the International Telecommunication Union and the International Telecommunications Satellite Organisation (INTELSAT) which has established a global communications satellite system. OTC is involved in the establishment of the International Maritime Satellite Organisation (INMARSAT) which will provide a satellite system for high-grade telephone, telex and data communications with ships at sea on a global basis, including distress and search and rescue communications.

Establishments

The Commission's Head Office is in Sydney and it has offices in Melbourne and Brisbane. The Commission owns and operates International Gateway terminals at Paddington and Broadway in Sydney which interface with the national telecommunications network; cable stations at Ceduna (S.A.) Cairns (Qld) and at Guam in the Mariana Islands; satellite earth stations at Carnarvon (W.A.), Ceduna (S.A.) and Moree (N.S.W.) which provide more than half of Australia's telecommunications links; international radio stations at Doonside and Bringelly (N.S.W.) and at Bassendean and Gnangara (W.A.); and fourteen coast radio stations at points around the Australian coast and at Norfolk Island for communicating with ships at sea.

Submarine cables

OTC is a part owner of the following submarine cables (the year in which they opened for service is in brackets): COMPAC, Sydney Auckland-Vancouver (1963); SEACOM, Sydney–Madang-Hong Kong Singapore (1967); TRANSPAC II, Hawaii-Guam Okinawa (1975); HAW III, Hawaii-U.S. Mainland (1975); TASMAN, Sydney-Auckland (1976); A-PNG, Cairns–Port Moresby (1976).

The OLUHO cable linking Okinawa (Japan), Luzon (Philippines) and Hong Kong was placed in service in August 1977. Plans for a Philippines-Singapore cable are progressing. An OTC ownership interest in both systems is under consideration.

Satellites

OTC is a shareholder in INTELSAT which operates communication satellites over the Indian, Pacific and Atlantic Oceans.

1976–77 Statistics

As at March 1977 the OTC staff totalled 2,059, revenue for the previous twelve months was approximately $100 million and profit after tax was $12.651 million, the after tax return on capital and reserves being 13.8 per cent. Telephone service which is available to 210 overseas destinations provided about 55 per cent of revenue, telex about 24 per cent and telegraph about 10 per cent. A significant event on 1st April 1976 was the introduction of International Subscriber Dialling or ISD, by which the customer can dial his or her own overseas telephone calls to many destinations. Over 97 per cent of overseas telex calls from Australia are now automatically subscriber connected.

Facilities to match growth

The high growth in demand for the Commission's services requires that the capacity of its major transmission and switching plant be at least doubled every three years. OTC is applying computer techniques extensively in its telegraph, telephone and telex services.

Charges

The Commission made some reduction in charges for its services in 1976–77 and will consider further reductions in 1977–78. Some other charges were increased to avoid excessive cross subsidisation.

Detailed information on OTC

The Commission reports on its operations to Parliament through its Minister about September each year. Traffic, financial and other information is contained in its Annual Report, copies of which are available on request to OTC.

International telecommunication traffic

The following table shows particulars of overseas telecommunication traffic between Australia and overseas countries for the years ended 31 March 1976 and 1977.

INTERNATIONAL TELECOMMUNICATION SERVICES: YEARS ENDED 31 MARCH 1976 AND 1977

		Transmissions					
		From Australia		*To Australia*		*Total*	
Service		*1975–76*	*1976–77*	*1975–76*	*1976–77*	*1975–76*	*1976–77*
Telephone .	'000 paid minutes	19,262	26,345	22,106	26,506	41,368	52,851
Telex . .	'000 paid minutes	9,637	11,453	9,320	10,981	18,957	22,434
Television programs	paid minutes	1,382	921	9,199	9,254	10,581	10,175
Telegraph services	'000 words	65,817	62,174	55,516	51,075	121,333	113,249

Coastal stations

The Overseas Telecommunications Commission operates fourteen coastal radio stations at points around the Australian coast, and one at Norfolk Island. During the year ended 31 March 1977 the coastal radio service handled 5,965,000 paid words to ships and 4,701,000 words from ships. Ship calls over the radiotelephone service extended over 202,000 paid minutes.

Radiocommunication stations authorised

At 30 June 1977 there were 266,403 civil radiocommunication stations authorised for operation in Australia and its Territories. Of these, 5,887 were stations established at fixed locations, 21,620 were land stations which were established at fixed locations for communication with mobile stations, 13 were space and broadcasting stations, 231,060 were mobile stations and 7,823 were amateur stations. Particulars of broadcasting stations are shown on page 536.

BROADCASTING AND TELEVISION

Radio and Television broadcasting falls within the jurisdiction of the Commonwealth Government and, pursuant to the *Broadcasting and Television Act* 1942, is one of the responsibilities of the Minister for Post and Telecommunications. Federal bodies which are directly involved include the Postal and Telecommunications Department, the Australian Broadcasting Commission, the Australian Broadcasting Tribunal, the Australian Telecommunications Commission and the Special Broadcasting Service (*see* page 535).

Basically, the Australian broadcasting and television system is comprised of the following types of stations: national broadcasting and television stations funded by the Federal Government; commercial broadcasting and television stations operated by companies under licence; public broadcasting and television stations operated by corporations under licence on a non-profit basis; and stations operated under the aegis of the Special Broadcasting Service.

As from 1 January 1977 the Postal and Telecommunications Department assumed the responsibility for broadcasting planning, including all matters relating to the technical operation of stations, and for the investigation of interference to the transmission and reception of programs.

The Commercial Broadcasting and Television Service

Commercial broadcasting and television stations are operated by companies under licences granted by the Australian Broadcasting Tribunal and with technical operating conditions determined by the Postal and Telecommunications Department. The stations obtain income from the broadcasting of advertisements. At 30 June 1977 there were 123 commercial broadcasting stations in operation in Australia. Call signs for radio stations are prefixed by numerals indicating each State of Australia. (2—New South Wales, 3—Victoria, 4—Queensland, 5—South Australia, 6—Western Australia, 7—Tasmania, 8—Northern Territory). In addition there were fifty commercial television stations and sixty-six commercial television translator stations in operation in Australia. A television translator station is a station of low power designed to receive the signals of another station and re-transmit them by wireless telegraphy; it does not originate programs. There are ten repeater stations in Australia operated by mining companies which transmit programs recorded on magnetic tape over a limited area.

The fee for a licence to operate a commercial broadcasting or television station is $200 plus an amount based on the gross earnings from advertising receipts during the preceding financial year, assessed on a sliding scale varying from 1 per cent for amounts up to $0.5 million to 6.0 per cent on amounts exceeding $5.0 million.

The Broadcasting and Television Act makes provision for the grant of licences for the operation of a broadcasting or a television station for special purposes. As at 9 November 1977 this section of the Act had not been proclaimed. However, fifteen stations have been licensed on an experimental basis and, of these, two are operated by music broadcasting societies in Sydney and Melbourne, while the remainder are associated with various tertiary educational institutions throughout Australia.

The Special Broadcasting Service

The *Broadcasting and Television Amendment Bill* 1977, which was passed by Parliament on 9 November 1977, makes provision for the establishment of the Special Broadcasting Service (SBS). The role of the new authority will be to produce special broadcasting programs which it would not be appropriate for the Australian Broadcasting Commission or other established broadcasters to undertake. Initially the SBS will be responsible for the ethnic broadcasting service through stations 2EA Sydney and 3EA Melbourne. It is envisaged that the SBS may, at a later stage, assume responsibility for other special broadcasting and television services in Australia. New services by the SBS, however, may only be undertaken after parliamentary approval is given and the necessary regulations promulgated. The SBS will be empowered to fund its operations by the broadcasting of sponsored programs, by charging for the provision of services and facilities and by the sale of programs and rights or interests in programs. These avenues of funding are in addition to moneys appropriated annually from the Parliament to the SBS. The SBS will not, however, derive revenue by means of normal commercial advertising.

Broadcasting services

The Australian Broadcasting Tribunal

The Australian Broadcasting Tribunal came into being on 1 January 1977 and is responsible for certain of the functions previously performed by the Australian Broadcasting Control Board (abolished 31 December 1976), including the licensing and supervising of the operations (other than technical aspects) of all stations except national stations. The Tribunal is empowered to grant, renew, suspend or revoke licences and to determine program and advertising standards applicable to licensed stations. In particular, the Tribunal is required to conduct public inquiries into the grant of licences following the invitation of applications by the Minister, and into the renewal of licences, the setting of standards of broadcasting practices, alleged breaches of licence conditions and such other matters as the Minister may direct.

The National Broadcasting Service

In sound broadcasting the programs of the National Broadcasting Service are provided by the Australian Broadcasting Commission through transmitters operated by the Australian Telecommunications Commission.

Technical facilities. At 30 June 1977 the National Broadcasting Service comprised 110 transmitting stations, of which eighty-eight were medium frequency, four frequency modulation and eighteen high frequency (six internal and twelve Radio Australia).

The medium-frequency transmitters operate in the broadcast band 530 to 1,590 kilohertz. The high-frequency stations, using frequencies within the band of three to thirty megahertz, provide services to listeners in sparsely populated parts of Australia such as the north-west of Western Australia, the Northern Territory, and northern and central Queensland.

Many of the programs provided by country stations are relayed from the capital cities using high-quality program transmission lines. A number of program channels are utilised to link national broadcasting stations in the capital cities of Australia. When necessary, this system is extended to connect both the national and commercial broadcasting stations.

At 30 June 1977 seventy-three of the Australian medium-frequency stations were situated outside the six State capital cities.

Program facilities. The programs of the Australian Broadcasting Commission cover a wide range of activities. The proportions of broadcasting time allocated on Radio 1 stations to the various types of program during 1976–77 were as follows: classical music 0.2 per cent; entertainment 57.1 per cent; news 8.3 per cent; sporting 12.5 per cent; light music 0.1 per cent; spoken word 9.1 per cent; drama and features 0.9 per cent; parliament 8.9 per cent; religious 1.4 per cent; young people's programs 0.6 per cent; rural 0.3 per cent; and presentation 0.6 per cent. By contrast, the ABC's Radio 2 station's programming was: classical music 54.3 per cent; light music 1.2 per cent; entertainment 3.4 per cent; drama and features 4.5 per cent; young people's programs 0.4 per cent; education 5.9 per cent; spoken word 13.6 per cent; religious 3.9 per cent; news 8.4 per cent; sporting 0.1 per cent; rural 3.5 per cent; and presentation 1.1 per cent. Radio 3 (regional) stations feature a higher proportion of news and rural programs. Further particulars of the operations of the Australian Broadcasting Commission in respect of music, drama and features, youth education, talks, rural broadcasts, news, and other activities are shown in the Forty-fifth Annual Report of the Australian Broadcasting Commission.

Overseas Broadcasting Service

There are seven high-frequency stations at Shepparton, two at Lyndhurst, Victoria, one at Brisbane, Queensland and two at Carnarvon, Western Australia which provide the overseas service known as 'Radio Australia'. As in the case of the National Broadcasting Service, these stations are maintained and operated by the Australian Telecommunications Commission, and their programs are arranged by the A.B.C. The programs, which, as well as entertainment, give news and information about Australia presented objectively, are directed to most parts of the world but with special emphasis on Asia and the Pacific. They include 73 news bulletins a day. The overseas audience has grown very substantially in recent years, as evidenced by a large and increasing number of letters from listeners abroad (277,638 in 1976–77), Radio Australia broadcasts in nine languages—English (and simple English), Indonesian, Japanese, Neo-Melanesian, Thai, French, Standard Chinese, Cantonese and Vietnamese.

BROADCASTING STATIONS: 30 JUNE 1977

Type of station	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
National—									
Medium frequency	22	6	20	10	18	6	5	2	89
High frequency	1	2	2	..	2	..	..	..	7
Frequency modulation	1	1	..	1	..	..	..	1	4
Overseas—									
Short wave	..	9	1	..	2	..	..	..	12
Domestic—									
Short wave (serving inland Australia, high frequency)	1	2	2	..	1	..	..	..	6
Commercial—									
Medium frequency	39	22	27	9	14	8	2	2	123
Public community—									
Medium frequency	1	1	..	1	(*a*)2	1	..	1	7
Frequency modulation	4	2	1	..	1	..	..	..	8

(*a*) Includes one emergency broadcasting station.

Television services

The National Television Service

The National Television Service is provided by the Australian Broadcasting Commission through transmitters operated by the Australian Telecommunications Commission. The first national station (ABN Sydney) commenced regúlar transmission on 5 November 1956. At 30 June 1977, 154 stations were operating, including sixty-nine translator stations.

The television programs provided by the Australian Broadcasting Commission cover a wide range of activities. The proportions of television time allocated among the ABC's various departments to 30 June 1977 were as follows: drama, 17.6 per cent; public interest, 15.9 per cent; sporting 17.3 per cent; news 6.7 per cent; variety and acts 5.9 per cent; education 25.8 per cent; musical performance 0.9 per cent; religious 1.1 per cent; rural 0.4 per cent; special arts and aesthetics 1.4 per cent; cartoons 0.8 per cent; panel and quiz games 0.5 per cent; and presentation 5.8 per cent. The average weekly transmission time for the 154 national television transmitters was eighty-five hours during the year ended 30 June 1977.

During the year ended 30 June 1977, one new national television transmitter, namely ABLCS Channel 9, Leigh Creek, South Australia, commenced regular transmission. Ten new national translator channels went into operation—at Eden and Menindee in New South Wales; North Cairns and Mossman in Queensland; Wongan Hills, Narrogin, Koolyanobbing and Newman in Western Australia; and Burnie and Wynyard in Tasmania.

Ten remote communities are now provided with ABC programs from material tape recorded at Townsville and Perth.

Colour television

Colour television (PAL) was introduced in Australia late in 1974 and services became fully effective in March 1975.

TELEVISION STATIONS: 30 JUNE 1977

Type of station and location	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Total*
National—									
Metropolitan	1	1	1	1	1	1	1	1	8
Country	13	7	31	6	15	2	3	..	77
Total, National	*14*	*8*	*32*	*7*	*16*	*3*	*4*	*1*	*85*
Commercial—									
Metropolitan	3	3	3	3	2	1	1	1	17
Country	11	6	8	3	4	1	..	..	33
Total, Commercial	*14*	*9*	*11*	*6*	*6*	*2*	*1*	*1*	*50*

TELEVISION TRANSLATOR STATIONS: 30 JUNE 1977

Type of station	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Total*
National	23	8	10	4	10	13	1	..	69
Commercial	21	9	15	2	2	16	..	1	66
Total	**44**	**17**	**25**	**6**	**12**	**29**	**1**	**1**	**135**

Related publications

More detailed figures and particulars for earlier years are included in the annual bulletins, *Rail, Bus and Air Transport* (9201.0), *Public Authority Finance—Federal Authorities* (5502.0), and in the annual mimeographed statement *Motor Vehicle Registrations* (9304.0). Current information on subjects dealt with in this chapter appears in the *Monthly Review of Business Statistics* (1304.0), the *Digest of Current Economic Statistics* (1305.0), *Overseas and Coastal Shipping* (annual) (9207.0), *Motor Vehicle Registrations* (quarterly) (9303.0), one preliminary monthly statement *Registration of New Motor Vehicles* (9301.0), two quarterly bulletins *Road Traffic Accidents involving Casualties* (9403.0) and (9402.0), and the monthly bulletin, *Road Accident Fatalities* (9401.0).

Information additional to that contained in Bureau publications is available in the annual reports and other statements of the Department of Transport, the various harbour boards and trusts, the several Government railway authorities, the Australian Postal Commission, the Australian Telecommunications Commission, and the Australian Broadcasting Commission.

CHAPTER 21

PRIVATE FINANCE

MONEY

Currency

Australia has a decimal system of currency, the unit being the dollar which is divided into 100 cents. Australian notes are issued in the denominations of $1, $2, $5, $10, $20 and $50 and coins in the denominations of 1c, 2c, 5c, 10c, 20c and 50c.

For additional information on note issues and coinage, refer to the List of Special Articles, etc. on pages 761–766.

AUSTRALIAN NOTES IN CIRCULATION
($ million)

	Last Wednesday in June				
	1973	*1974*	*1975*	*1976*	*1977*
$1 . . .	48.5	53.2	52.7	53.6	57.4
$2 . . .	123.7	130.2	129.1	127.8	133.0
$5 . .	94.4	103.5	110.2	116.4	121.8
$10 . . .	639.9	701.1	675.2	655.2	628.8
$20 . . .	851.4	960.6	1,186.7	1,334.6	1,489.0
$50 . . .	..	197.5	403.2	633.8	860.8
Total .	**1,757.8**	**2,146.1**	**2,557.1**	**2,921.4**	**3,290.8**
Held by banks .	*229.2*	*300.8*	*339.9*	*352.5*	*378.1*
Held by public .	*1,528.6*	*1,845.3*	*2,217.1*	*2,568.9*	*2,912.8*

AUSTRALIAN DECIMAL COIN: VALUE OF COIN ISSUED
($ million)

	Year ended 30 June				
	1973	*1974*	*1975*	*1976*	*1977*
1c . . .	1.1	1.5	1.1	1.4	1.8
2c . . .	1.7	2.7	1.9	2.1	1.7
5c . . .	1.8	3.2	3.2	3.3	6.8
10c . . .	2.0	3.0	4.6	5.6	1.9
20c . . .	3.4	5.0	7.6	9.9	10.1
50c . . .	4.0	5.4	7.0	8.3	20.3
Total .	**14.0**	**20.8**	**25.4**	**30.5**	**42.6**

Volume of money

Statistics of the volume of money in the table below include notes and coins in the hands of the public, deposits of the public with trading banks (including the Reserve Bank) and deposits with all savings banks.

Conceptually, the volume of money is a measure of specified financial assets held by the non-bank public and, consequently, should exclude deposits of the Commonwealth and State Governments and inter-bank deposits. It has not been possible, however, to exclude government and bank holdings from certificates of deposit or deposits with savings banks.

Financial assets included in the volume of money as defined above represent only part (albeit a major part) of the public's total holdings of liquid financial assets. An expanded view of the volume of money would include the public's holdings of such other claims as finance company debentures, deposits and shares of building societies, loans to authorised dealers in the short-term money market, government securities, etc.

VOLUME OF MONEY
(*Source:* Reserve Bank of Australia)
($ million)

Average of weekly figures for June	*Notes and coins in the hands of public*	*Deposits of public with all trading banks*			*Deposits with all savings banks(b)(c)*	*Total volume of money*
		Current(a)	*Fixed(b)*	*Certificates of deposit(b)*		
1973 . .	1,653	5,577	4,087	447	10,090	21,856
1974 . .	1,957	5,424	3,943	2,556	11,139	25,018
1975 . .	2,356	5,971	6,740	1,144	(*d*)12,656	(*d*)28,867
1976 . .	2,751	6,788	7,576	1,077	14,651	32,842
1977 . .	3,111	7,237	8,787	978	16,197	36,311

(*a*) Excludes deposits of the Commonwealth and State Governments and inter-bank deposits. (*b*) Includes holdings of the Commonwealth and State Governments and banks. (*c*) Interpolated 'weekly average' based on end-of-month figures. (*d*) Data from 1975 reflect a change in accounting procedures by one bank.

FINANCIAL REGULATION

Commonwealth legislation for economic management

With federation in 1901 the new Commonwealth Parliament was given power under Section 51 of the Commonwealth Constitution to legislate with respect to 'Banking, other than State Banking, also State Banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money'. In 1911 the Commonwealth entered the field of banking with the establishment of the Commonwealth Bank of Australia, which conducted both trading bank and savings bank operations.

From 1911 to 1945 the functions of central banking became more and more the responsibility of the Commonwealth Bank and in 1945 the Commonwealth Parliament directed it to act as a central bank. In the ensuing period of economic growth and financial development, the need for effective regulatory control of finance through banks became increasingly recognised. During 1959 the Commonwealth Parliament enacted the following legislation:

(*a*) The *Banking Act* 1959 which applies to all banks operating in Australia, including the external territories of the Commonwealth, except State banks trading in their own State. The objects of the Act are:
  (i) to provide a legal framework uniform throughout Australia for regulating the banking system;
  (ii) to safeguard depositors of the banks from loss;
  (iii) to provide for the co-ordination of banking policy under the direction of the Reserve Bank;
  (iv) to control the volume of credit in circulation and bank interest rates; and
  (v) to mobilise and to provide machinery for the control of the foreign exchange and gold resources of the Australian economy.

(*b*) The *Reserve Bank Act* 1959 which provides for the constitution and management of the Reserve Bank of Australia, the administration of the *Banking Act* 1959 and the management of the Australian note issue.

(*c*) The *Commonwealth Banks Act* 1959 which provides for the constitution and management of the Commonwealth Banking Corporation, Commonwealth Trading Bank of Australia, Commonwealth Savings Bank of Australia, and the Commonwealth Development Bank of Australia.

Information on more specific aspects of the growth and control of the banking industry is contained in earlier issues of the Year Book (Nos. 31, 37, 45, 46 and 61).

More recently, as a result of the further development of the financial market and the increasing significance in the market of the non-bank financial institutions such as finance companies, building societies, merchant banks and money market dealers, the *Financial Corporations Act* 1974 was introduced. The object of this Act is to assist the Government to achieve effective management of the Australian economy by providing a means for the examination and regulation of the activities of non-banking financial institutions having regard to economic stability, the maintenance of full employment, the efficient allocation of productive resources, the ensuring of adequate levels of finance for housing and the economic prosperity and welfare of the people of Australia.

A corporation comes within the ambit of the Act if its sole or principal business activity in Australia is the borrowing of money and the provision of finance; if its assets in Australia arising from the provision of finance exceed fifty per cent (or a prescribed percentage) of the value of its assets in Australia; or if it provides finance in the course of carrying on in Australia a business of selling goods by retail, and the value of its assets arising from the provision of finance, combined with those of its related retail corporations, exceeds $5 million (or an amount prescribed).

The Act does not apply to corporations if they are: public authorities; authorised banks; terminating building societies; friendly or benefit societies; medical or hospital benefits organisations; life insurance companies; general insurance companies; trustee corporations; borrowing principally to lend money to related corporations which are not subject to the Act; registrable according to the above criteria but the combined value of the assets of the corporation and its related financial corporations does not exceed $1 million; or exempted by order of the Treasurer on the advice of the Reserve Bank.

The Act requires the Treasurer, on the advice of the Reserve Bank, to divide corporations into the following categories: building societies, credit co-operatives, authorised money market dealers, money market corporations, pastoral finance companies, finance companies, general financiers, retailers, intra-group financiers, and other financial corporations. A list of registered corporations in each category at 17 October 1975 was published in the Commonwealth of Australia *Gazette* of that date. Any variation to this list is also to be published in the *Gazette*.

The *Financial Corporations Act* provides for registered corporations to supply to the Reserve Bank and the Australian Statistician information on their borrowing, raisings, lending, investments, assets, liabilities and rates of interest paid or charged. The Act further provides for the Statistician, as directed by the Treasurer, to compile and publish information from such statements.

The reporting obligations of corporations are dependent on their size. Part II of the *Financial Corporations* (*Statistics*) *Regulations* requires registered corporations with assets in Australia exceeding $5 million to furnish prescribed monthly statements. Part III of these Regulations requires registered corporations other than retailers with assets in Australia of $5 million or less but greater than $1 million to furnish similar quarterly statements. In Part IV of the Regulations, registered corporations classified as 'retailers' are required to furnish quarterly statements. Regulations are also being promulgated to facilitate the monthly collection of supplementary data from registered corporations with assets in Australia exceeding $5 million.

Statistics compiled from information collected from corporations registered under the Act are provided in the tables on page 554.

The Reserve Bank may specify control determinations for the regulation of activities of registered corporations which, together with their related corporations, have total assets in excess of $5 million (or a prescribed figure). These must be in accordance with the Regulations to the Act, have the approval of the Treasurer and be published in the Commonwealth of Australia *Gazette*. No control regulations have yet been promulgated under the *Financial Corporations Act*. Generally, the Reserve Bank is able to make particular determinations for different categories of corporations, but not different determinations for corporations in the same category.

More specifically, the types of determinations that the Reserve Bank may make are:

(*a*) to maintain particular kinds of prescribed assets to an amount specified (a corporation may be required to comply with two or more asset ratio determinations);

(*b*) to establish policy in respect of volume and direction of lending; and

(*c*) to prohibit the receipt or payment of interest at a rate exceeding a determined rate.

Provision is also made under the Act for the appointment of committees comprised of members representative of and knowledgeable in registered corporations. These committees are normally consulted by the Treasurer on matters of examination and regulation of registered corporations.

Other Commonwealth legislation directly affecting financial institutions

Insurance. Section 51 of the Commonwealth Constitution also confers the necessary powers on the Australian Parliament to legislate with respect to 'insurance, other than State insurance; also State insurance extending beyond the limits of the State concerned'. Commonwealth legislation includes the *Marine Insurance Act* 1909 defining the limits of marine insurance and regulating the terms of contracts, etc.; the *Insurance* (*Deposits*) *Act* 1932 requiring the lodgment of deposits by insurance companies; the *Life Insurance Act* 1945 generally regulating life insurance business in Australia; and the *Insurance Act* 1973 generally regulating non-life (general) insurance business in Australia. The *Marine Insurance Act* 1909 and the *Insurance* (*Deposits*) *Act* 1932 have limited application.

Life Insurance Act 1945. The objects of this Act are:

(*a*) to replace all State legislation on the subject of life insurance except that relating to the life insurance operations of State government insurance offices within the State concerned, and to provide uniform legislation for the whole of Australia;

(*b*) to appoint a Life Insurance Commissioner to exercise active supervision of the activities of life insurance companies, with a view to securing the greatest possible protection for policy holders; and

(*c*) to set up adequate machinery for dealing with any company that fails to maintain a required minimum standard of solvency.

The Act came into operation on 20 June 1946. A summary of the provisions of the Act is given in Year Book No. 37, pages 595–7. The Life Insurance Commissioner issues an annual report which contains detailed information on the operations of life insurance companies.

Insurance Act 1973. The objects of this Act are:

(*a*) to appoint an Insurance Commissioner to exercise active supervision of the activities of companies conducting general (non-life) insurance business, apart from State government insurance whether or not extending beyond the limits of the State concerned and other organisations specified in the Act, with a view to securing the greatest possible protection for policy holders; and

(*b*) to set up adequate machinery for dealing with any company that fails to maintain a required minimum standard of solvency.

The Act came into operation on 19 June 1973. The Insurance Commissioner issues an annual report which contains detailed information on the operations of insurance companies.

State legislation

In each State there exists legislation designed to regulate the activities and monitor the solvency position of particular types of financial institutions which operate on a co-operative basis and lend predominantly to members or consumers. In general, they form the groups covered later in this chapter under the headings of Permanent Building Societies, Terminating Building Societies and Credit Unions.

In some States there is also legislation for the incorporation of State government bodies which operate as banks or insurance offices. Though the regulations in Commonwealth legislation do not directly apply to these bodies, details of their operations have been included in the relevant parts of this chapter because they have agreed to supply information consistent with regulatory reports on a voluntary basis.

BANKS

Reserve Bank of Australia

The Reserve Bank of Australia preserved and continued in existence the original corporate body known as the Commonwealth Bank of Australia under the new name Reserve Bank of Australia. An account of the progress and development of that bank is given in earlier issues of the Year Book (*see* No. 37, pages 570–2 and No. 45, pages 735–7).

The general functions of the Reserve Bank are set out in Section 10 of the *Reserve Bank Act* 1959, which states:

> 'It is the duty of the Board, within the limits of its powers, to ensure that the monetary and banking policy of the Bank is directed to the greatest advantage of the people of Australia and that the powers of the bank under this Act, the *Banking Act* 1959, and regulations under that Act are exercised in such a manner as, in the opinion of the Board, will best contribute to,
>
> (*a*) The stability of the currency of Australia;
> (*b*) The maintenance of full employment in Australia; and
> (*c*) The economic prosperity and welfare of the people of Australia'.

Management

The policy of the Reserve Bank is determined by a Board consisting of the Governor (Chairman), the Deputy Governor, the Secretary to the Treasury, and seven other members appointed by the Governor-General. The Bank is managed by the Governor, who acts in accordance with the policy of the Board and with any directions of the Board. The Bank is required to inform the Government of the monetary and banking policy of the Board. In the event of a disagreement between the Government and the Board as to whether the monetary and banking policy of the Bank is directed to the greatest advantage of the people of Australia, the Governor-General, acting with the advice of the Executive Council, may determine the policy to be adopted by the Bank.

Central banking business

Under the *Commonwealth Bank Act* 1911 and the war-time powers conferred by the National Security Regulations, the Commonwealth Bank gradually assumed the functions of a Central Bank.

Part III of the *Commonwealth Bank Act* 1945 formally constituted the Bank as a Central Bank and granted the necessary powers to carry on the business of a Central Bank, these powers being carried through into the present Act constituting the Reserve Bank.

Note issue department

The Note Issue Department, established in 1920 when the control of the Australian note issue was transferred from the Commonwealth Treasury to the Commonwealth Bank, was maintained in the same form under the *Reserve Bank Act* 1959. The Reserve Bank may, through this Department, issue, re-issue and cancel Australian notes.

Rural credits department

The Rural Credits Department, established in 1925 for the purpose of making short-term credit available for the orderly marketing of primary produce, was continued in the same form under the *Reserve Bank Act* 1959. The Reserve Bank may, through this Department, make advances upon the security of primary produce placed under the legal control of the Bank, or other security associated with the production or marketing of primary produce, to co-operative associations or marketing boards formed under the laws of the Commonwealth or a State or Territory of the Commonwealth or other bodies specified by proclamation. The period of the advance is not to exceed one year.

RESERVE BANK OF AUSTRALIA: LIABILITIES AND ASSETS

($ million)

LIABILITIES

30 June—	Capital and reserve funds	Special reserve—I.M.F. special drawing rights	Australian notes on issue	Deposits of trading banks		Deposits of savings banks	All other liabilities	Total
				Statutory reserve deposit accounts	Other			
1973 . .	66.3	192.4	1,767.4	784.1	39.4	1,323.0	1,574.2	5,746.8
1974 . .	67.1	183.4	2,163.8	912.8	13.9	1,052.7	2,100.9	6,494.5
1975 . .	68.2	207.0	2,545.1	417.9	37.8	908.0	1,540.8	5,724.8
1976 . .	69.3	200.6	2,921.4	779.7	74.7	1,053.9	1,271.1	6,370.8
1977 . .	70.5	218.2	3,319.3	1,584.4	29.5	1,055.7	1,832.2	8,109.9

ASSETS

30 June—	Gold and foreign exchange (a)	Australian Government securities (b)	Loans, advances, bills discounted	Bank premises (c)	All other assets	Total
1973 . .	4,104.4	608.4	252.5	51.6	730.0	5,746.8
1974 . .	3,410.8	1,396.6	603.1	51.9	1,032.1	6,494.5
1975 . .	3,337.3	1,227.7	440.3	52.7	666.8	5,724.8
1976 . .	2,422.0	2,706.7	658.6	56.5	527.0	6,370.8
1977 . .	2,466.6	4,205.2	975.0	65.6	397.5	8,109.9

(*a*) Includes currency at short call and International Monetary Fund drawing rights. (*b*) Includes Treasury bills and Treasury notes. (*c*) At cost, less amounts written off.

Trading banks

Commercial banking in Australia is conducted by thirteen trading banks. Six large private trading banks, together with the Commonwealth Trading Bank, are generally referred to as the major trading banks. These banks provide widespread banking facilities throughout Australia. The remaining six banks comprise one small local bank, two overseas banks which have been represented in Australia for many years and three State-owned banks operating only within their respective States.

The major trading banks are as follows: Commonwealth Trading Bank of Australia; Australia and New Zealand Banking Group; The Bank of Adelaide; Bank of New South Wales; The Commercial Bank of Australia Ltd; The Commercial Banking Company of Sydney Ltd; and The National Bank of Australasia Ltd.

The other trading banks are: Bank of Queensland Ltd; Bank of New Zealand; Banque Nationale de Paris; The Rural Bank of New South Wales; State Bank of South Australia; and The Rural and Industries Bank of Western Australia (Rural Department).

Liabilities and assets

Balance sheet information contained in the following table does not relate to uniform accounting periods but rather to the balance dates of banks within the financial years shown.

AUSTRALIAN TRADING BANKS(*a*): LIABILITIES AND ASSETS(b)

($ million)

LIABILITIES

	Paid-up capital	*Reserve funds (used in business of banks)*	*Final dividend proposed*	*Balance of profit and loss account*	*Total share-holders' funds or total capital and reserve funds*	*Balances due to other banks*	*Deposits, bills payable and other liabilities (c)*	*Total*
1972 . .	341.5	313.2	16.0	33.5	704.1	801.1	11,981.7	13,487.0
1973 . .	376.9	388.1	19.3	35.6	819.9	798.3	15,659.9	17,278.1
1974 . .	417.4	467.6	21.7	39.0	945.7	1,296.0	17,929.1	20,170.8
1975 . .	426.4	494.8	22.4	48.7	992.4	1,122.4	21,274.6	23,389.4
1976 . .	450.4	539.0	30.8	58.1	1,078.3	1,220.3	24,077.0	26,375.6

ASSETS

			Australian public securities					
			Australian Government					
	Coin, bullion, notes and cash at Reserve Bank	*Money at short call overseas*	*Treasury bills and notes*	*Other securities*	*Local and semi-government securities*	*Other public securities*	*Other securities*	*Loans to authorised dealers in short-term money market*
1972 . .	208.3	58.8	258.9	2,100.7	60.1	172.0	310.4	297.9
1973 . .	219.7	81.6	186.5	2,258.5	64.8	258.3	400.3	294.5
1974 . .	313.7	96.4	203.0	2,059.0	71.3	114.1	423.4	303.7
1975 . .	378.9	46.0	1,044.0	2,720.9	77.6	167.0	456.9	327.0
1976 . .	345.8	58.4	313.5	3,737.4	90.0	220.6	509.1	543.8

	Statutory reserve deposit account with Reserve Bank	*Cheques and bills of, and balances with and due from other banks*	*Loans, advances and bills discounted*	*Bank premises, furniture and sites*	*Bills receivable and remittances in transit*	*All other assets*	*Total*
1972 . .	566.4	753.2	6,866.8	199.7	1,378.8	255.0	13,487.0
1973 . .	905.1	837.9	9,612.4	217.3	1,549.2	392.0	17,278.1
1974 . .	626.4	962.8	11,611.7	248.3	2,139.8	997.2	20,170.8
1975 . .	641.9	996.6	13,158.3	311.7	1,911.2	1,151.6	23,389.4
1976 . .	791.3	982.1	14,817.6	369.7	2,147.0	1,449.1	26,375.6

(*a*) Excludes the overseas banks but includes the deposits and assets held against the deposits of the Savings Bank Division of the Rural and Industries Bank of Western Australia. (*b*) This table relates to liabilities and assets both inside and outside Australia. (*c*) Includes provisions for contingencies.

Figures shown for averages of liabilities and assets in the table below are the average of liabilities and assets within Australia (including External Territories and, up to 1973, Papua New Guinea) of the banks on the weekly balance days (Wednesdays) during the period concerned.

ALL TRADING BANKS: AVERAGE LIABILITIES AND ASSETS(*a*) WITHIN AUSTRALIA(*b*)

($ million)

LIABILITIES(*c*)

	Deposits repayable in Australia						
		Current					
June	*Fixed*	*Bearing interest*	*Not bearing interest*	*Total*	*Balances due to other banks*	*Bills payable and all other liabilities to the public*	*Total*
1973 . .	5,152.2	648.6	5,271.7	11,072.5	351.0	726.3	12,149.7
1974 . .	6,985.9	660.1	5,068.0	12,714.0	669.2	1,196.9	14,580.0
1975 . .	8,635.0	842.6	5,458.0	14,935.7	588.0	1,695.2	17,218.9
1976 . .	9,775.4	930.0	6,250.9	16,956.3	603.9	2,094.9	19,655.1
1977 . .	11,462.7	992.3	6,640.8	19,095.8	605.7	2,373.4	22,075.0

ALL TRADING BANKS: AVERAGE LIABILITIES AND ASSETS(*a*) WITHIN AUSTRALIA(*b*)—*continued*

($ million)

ASSETS(*d*)

June	*Coin, bullion, notes and cash at Reserve Bank*	*Australian Government securities*		*Local and semi-government securities*	*Loans to authorised dealers in short-term money market*	*Statutory reserve deposit account with Reserve Bank*	*Loans, advances and bills discounted*	*All other assets*	*Total*
		Treasury bills and notes	*Other securities*						
1973 . .	213.6	189.0	2,221.0	27.6	149.6	784.7	7,856.2	1,181.2	12,622.9
1974 . .	273.0	79.8	2,084.3	27.6	65.4	1,032.6	10,120.3	1,678.3	15,361.3
1975 . .	299.0	1,167.8	2,358.9	31.2	167.4	421.4	11,205.0	2,322.8	17,973.5
1976 . .	345.6	191.0	3,410.9	32.8	182.3	840.5	12,559.5	2,787.3	20,349.9
1977 . .	379.9	78.8	3,567.9	46.1	144.8	1,704.2	13,985.3	3,221.8	23,128.8

(*a*) Figures shown for average of liabilities and assets are the average of liabilities and assets within Australia of the banks at the close of business on the weekly balance days (usually Wednesdays) during the period concerned. (*b*) Includes External Territories and up to 1973 Papua New Guinea. (*c*) Excludes shareholders' funds, inter-branch accounts and contingencies. (*d*) Excludes inter-branch accounts and contingencies.

Major trading banks: classification of advances and deposits

In the classification of advances and deposits, borrowers and lenders are classified into two main groups:

Residents—comprising all institutions (including branches of overseas institutions) engaged in business in Australia and individuals permanently residing in Australia; and

Non-residents—comprising all other persons and institutions, including companies incorporated abroad, which, although represented, do not carry on business in Australia.

Residents are further classified into:

Businesses—partnerships, companies and other institutions engaged in business in Australia; individuals actively engaged in business or a profession on their own behalf; and mutual, co-operative and benefit societies which distribute their profits to members by way of dividends, rebates of charges for goods and services, or increased benefits.

Public authorities—local and semi-government authorities including separately constituted government business undertakings, but not the Australian and State governments.

Persons—individuals other than those carrying on a business or profession.

Non-profit organisations—organisations which are not operated for the purpose of making a profit or gain to individual members, but for the purposes of the organisations or for the benefit of the community in general.

MAJOR TRADING BANKS: CLASSIFICATION OF ADVANCES AND DEPOSITS WITHIN AUSTRALIA

($ million)

	Advances				*Deposits*			
	At second Wednesday of:				*At second Wednesday of:*			
	January 1976	*July 1976*	*January 1977*	*July 1977*	*January 1976*	*July 1976*	*January 1977*	*July 1977*
Residents—								
Businesses								
Agriculture, grazing and dairying . . .	1,179.0	1,317.4	1,285.7	1,397.4	1,535.9	1,226.7	1,457.5	1,227.6
Manufacturing . .	1,459.3	1,629.3	1,616.0	1,711.2	695.8	551.7	725.8	445.1
Transport, storage and communication . .	198.1	201.0	206.0	208.7	178.8	178.6	180.1	211.9
Finance . . .	649.5	630.9	670.1	627.6	1,451.6	1,151.2	1,464.0	1,226.1
Commerce . . .	1,187.7	1,343.1	1,356.3	1,454.8	859.4	780.2	964.2	745.1
Building and construction	345.2	370.2	387.4	416.8	407.8	382.8	435.1	365.1
Other businesses . .	2,106.5	2,002.8	2,100.5	2,137.0	1,749.4	1,773.3	2,058.3	1,879.7
Unclassified . . .	182.8	243.6	261.7	263.9	170.9	221.0	238.8	280.4
Total business . .	*7,308.1*	*7,738.1*	*7,883.7*	*8,217.4*	*7,049.7*	*6,265.5*	*7,523.8*	*6,380.9*
of which—								
Companies . .	4,617.3	4,983.4	5,082.0	5,025.2	3,208.5	2,807.7	3,572.6	2,943.5
Other . . .	2,690.8	2,754.7	2,801.7	3,192.2	3,841.2	3,457.8	3,951.3	3,437.4
Public authorities .	204.4	144.0	152.4	155.5	1,333.7	1,549.2	1,871.7	1,580.8
Persons	2,658.4	3,101.8	3,491.7	3,939.0	5,047.0	5,004.0	5,561.6	5,749.7
Non-profit organisations	123.8	127.4	135.8	128.3	690.5	709.3	756.2	848.2
Total residents . .	*10,294.7*	*11,111.3*	*11,663.6*	*12,440.1*	*14,120.8*	*13,528.0*	*15,713.3*	*14,559.6*
Total non-residents . .	*12.7*	*29.0*	*12.3*	*14.4*	*143.3*	*170.3*	*229.1*	*210.3*
Total . . .	**10,307.4**	**11,140.3**	**11,675.9**	**12,454.6**	**14,264.1**	**13,698.3**	**15,942.4**	**14,769.9**

Interest rates

At 30 June 1977 the maximum rates of interest were: (i) on fixed deposits of less than $50,000, for periods of 3 months and less than 6 months—7.75 per cent to 8.25 per cent, 6 months and less than 2 years—8.25 per cent to 9.00 per cent, 2 years and less than 4 years—8.00 per cent to 9.50 per cent; (ii) on fixed deposits of $50,000 and over, 30 days to 4 years—10 per cent; (iii) on certificates of deposit of $50,000 and over, 3 months to 4 years—not subject to maximum rate; (iv) on overdrafts under $100,000—10.50 per cent; (v) on overdrafts over $100,000—not subject to maximum rate; (vi) on personal loans—7.75 per cent.

Branches and agencies

At 30 June 1977 the major trading banks operated 4,778 branches, and the other trading banks 335 branches. Of the total 5,113 branches, 2,739 were located in metropolitan areas. Trading bank facilities were also available at 927 agencies throughout Australia.

Debits to customers' accounts

TRADING BANKS: AVERAGE WEEKLY DEBITS TO CUSTOMERS' ACCOUNTS(*a*)
($ million)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1972–73	3,058.0	2,306.7	597.5	336.4	355.9	85.3	17.8	64.6	6,822.2
1973–74	3,397.5	2,642.5	753.4	414.6	439.4	103.0	19.3	73.9	7,843.7
1974–75	3,805.9	2,898.8	817.9	456.6	515.9	119.4	22.7	78.6	8,715.6
1975–76	4,462.0	3,808.0	1,027.4	578.0	680.0	150.2	27.8	118.1	10,851.5
1976–77	5,156.3	4,588.4	1,230.7	690.0	814.4	179.8	35.6	138.7	12,833.8

(*a*) Covers all trading banks and in addition the Rural Credit Department of the Reserve Bank and the Commonwealth Development Bank. Excludes debits to the Australian and State Government accounts in capital cities.

Savings banks

Prior to 1956 savings bank operations were conducted by the Commonwealth Savings Bank, two trustee savings banks in Tasmania, and State-owned banks in Victoria, South Australia and Western Australia. In January 1956 private savings banks were established as subsidiary companies by two of the private trading banks. By mid-1962 all the major private trading banks had established savings bank subsidiary companies. In May 1972 the Bank of New Zealand Savings Bank Limited was granted an authority to carry on savings bank business in Australia.

For further information on the origin of savings banks in Australia, see Year Book No. 50, page 854, and earlier issues.

All savings banks, including trustee savings banks but not State savings banks, are subject to the *Banking Act* 1959. Details of this Act and the special provisions applying to savings banks are given in Year Book No. 46.

Liabilities and assets

Balance sheet information contained in the following table does not relate to uniform accounting periods but rather to the balance dates of banks falling within the financial years shown.

SAVINGS BANKS(*a*): LIABILITIES AND ASSETS(*b*)

($ million)

LIABILITIES

	Paid-up capital	*Reserve funds (used in the business of the bank)*	*Balance of profit and loss account*	*Total share-holders' funds*	*Deposi-tors' balances*	*Balances due to other banks*	*Bills payable and all other liabilities (c)*	*Total*
1972 . .	31.5	171.0	8.9	211.4	8,547.1	19.2	293.9	9,071.7
1973 . .	36.5	191.1	9.4	237.1	10,398.4	25.3	343.6	11,004.4
1974 . .	40.5	207.3	9.7	257.5	11,101.0	35.9	395.6	11,789.9
1975 . .	43.0	227.0	11.1	281.0	12,984.8	96.7	549.6	13,912.2
1976 . .	49.0	262.0	14.1	325.1	14,956.3	65.2	633.5	15,980.1

ASSETS

			Australian public securities			
			Australian and State Governments			
	Coin, bullion, notes and deposits with Reserve Bank	*Deposits in Australia with trading banks*	*Treasury bills and notes*	*Other securities*	*Local and semi-government securities*	*Other securities*
1972 . .	906.1	188.6	39.3	2,352.5	2,171.4	36.9
1973 . .	1,356.8	233.5	104.1	2,744.4	2,511.2	40.2
1974 . .	1,059.0	281.3	47.8	2,850.4	2,791.6	24 8
1975 . .	978.5	430.9	50.4	3,001.8	3,298.1	43.6
1976 . .	1,099.3	314.4	48.6	2,896.5	3,898.6	55.8

	Loans to authorised dealers in short-term money market	*Cheques and bills of, and balances with and due from other banks(d)*	*Loans advances and bills discounted*	*Bank premises, furniture and sites*	*Bills receivable and re-mittances in transit*	*All other assets*	*Tota*
1972 . .	55.9	212.7	2,897.7	111.5	0.1	99.0	9,071.7
1973 . .	103.6	228.4	3,433.1	119.7	..	129.4	11,004.4
1974 . .	69.7	245.4	4,138.1	135.5	..	146.2	11,789.9
1975 . .	79.5	279.1	5,381.8	173.3	0.1	195.3	13,912.2
1976 . .	68.2	322.9	6,805.1	204.9	55.8	210.1	15,980.1

(*a*) Excludes Savings Bank Division of the Rural and Industries Bank of Western Australia. (*b*) This table relates to liabilities and assets both inside and outside Australia. (*c*) Includes provisions for contingencies. (*d*) Includes deposits with and loans to specified lenders other than trading banks.

Branches and agencies

At 30 June 1977 the savings banks operated 5,573 branches and 12,733 agencies, of which 3,042 branches and 6,224 agencies were in 'metropolitan areas'.

Development banks

Commonwealth Development Bank of Australia

The Commonwealth Development Bank of Australia was established by the *Commonwealth Banks Act* 1959 and commenced operations on 14 January 1960. It was formed basically from an amalgamation of the Mortgage Bank and Industrial Finance Departments of the Commonwealth Bank of Australia. Under the Act the Bank is authorised to provide assistance for the development of worthwhile enterprises in the fields of primary and secondary industries which would otherwise be unable to obtain the necessary finance on reasonable and suitable terms and conditions. The Commonwealth Development Bank is managed by a General Manager under the Managing Director of the Commonwealth Banking Corporation and its policy is determined by the Board of that Corporation. The capital of the Development Bank consists of the capital of the Mortgage Bank and Industrial Finance Departments of the Commonwealth Bank immediately prior to 14 January 1960, $10 million provided by the Reserve Bank, $20 million appropriated from the Consolidated Revenue Fund in 1961–62 by the *Commonwealth Banks Act* 1961 and the *Commonwealth Banks Act* 1962, $10 million appropriated in 1963–64 by the *Commonwealth Banks Act* 1963, and such other sums as are provided from the Commonwealth Development Bank Reserve Fund. The net profits of the Bank are paid to the Commonwealth Development Bank Reserve Fund.

Australian Resources Development Bank Limited

The Australian Resources Development Bank Limited was established in 1967 with equity capital of $3 million subscribed by the major trading banks. It was given the status of a bank by the *Banking Act* 1967 and opened for business on 29 March 1968. The main object of the Australian Resources Development Bank is to assist Australian enterprises to participate more fully in the development of Australia's natural resources. It provides finance to enterprises engaged in major developmental projects by direct loans, investing in equity capital or by refinancing loans made by trading banks acting individually or as a group. The Australian Resources Development Bank obtains funds by accepting deposits and by borrowing on the Australian and overseas capital markets.

REGISTERED BUILDING SOCIETIES

Permanent building societies

A permanent building society is defined as an organisation that; (i) is registered under relevant State or Territory legislation; (ii) has rules or regulations that do not specify that it is to terminate on a specific date or when a specific objective is achieved; and (iii) operates on a co-operative basis by borrowing predominantly from its members and providing finance to its members principally in the form of housing loans.

In 1976 a statistical collection was introduced covering the financial accounts of permanent building societies in all States and Territories of Australia. The statistics below summarise information collected from the 168 permanent building societies balancing within the 1975–76 financial year. More detailed descriptions and dissections of these statistics may be found in the annual bulletin *Permanent Building Societies: Assets, Liabilities, Income and Expenditure* (5632.0).

Information relating to the housing finance operations of permanent building societies is provided on pages 564–566. Detailed statistics on the operations generally of permanent building societies are available in the monthly bulletin *Housing Finance for Owner Occupation, Permanent Building Societies* (5610.0).

Summary statistics on the financial operations, assets and selected liabilities of permanent building societies registered under the *Financial Corporations Act* 1974, and which have assets in Australia exceeding $5 million, are given on page 554.

PERMANENT BUILDING SOCIETIES:
LIABILITIES AND ASSETS(*a*)
($ million)

Liabilities	*1975–76*	*Assets*	*1975–76*
Share capital and reserves:		Amount owing on loans	3,928.9
Non-withdrawable shares	18.7		
Withdrawable shares	3,676.5	Cash on hand	2.1
Reserves—		Deposits with—	
Statutory	33.5	Banks	557.1
Other(*b*)	43.2	Other	148.6
Deposits	982.3	Bills, bonds and other securities	249.9
Loans	233.8	Accounts receivable	21.1
Accounts payable	21.5	Physical assets	110.0
Other liabilities	12.5	Other assets	4.0
Total liabilities	**5,021.8**	**Total assets**	**5,021.8**

(*a*) At the balance dates of societies within the financial year shown. (*b*) Includes accumulated surpluses and deficits.

PERMANENT BUILDING SOCIETIES
INCOME AND EXPENDITURE
($ million)

Expenditure	*1975–76*	*Income*	*1975–76*
Interest on:		Interest from:	
Shares	301.4	Loans	400.7
Deposits	89.7	Deposits	70.3
Loans	13.6		
Wages and salaries	23.9	Income from holdings of securities	21.3
Management fees(*a*)	14.5		
Administrative expenses(*b*)	26.7	Management fees	8.5
Insurance premiums paid	0.8		
Other expenditure	13.2	Other income	8.6
Total expenditure	**483.8**	**Total income**	**509.3**

(*a*) Represents payments made by societies to separate management companies. (*b*) Includes Permanent Building Society Association costs, advertising, bank charges and other administrative expenses.

Terminating building societies

A terminating building society is defined as an organisation that: (i) is registered under relevant State or Territory legislation; (ii) has rules or regulations that specify it is to terminate on a specific date or when a specific objective is achieved; and (iii) makes loans to members from funds obtained from lending institutions (usually government guaranteed), members' subscriptions, or from moneys provided under Federal-State Housing Agreements.

Information relating to the housing finance operations of terminating building societies is provided on page 565.

TERMINATING BUILDING SOCIETIES(*a*)

		1971–72	*1972–73*	*1973–74*	*1974–75*
Selected items—					
Societies submitting returns(*b*)	No.	5,461	5,718	6,037	6,236
Shareholders	No.	191,335	180,554	179,696	187,959
Loans paid over	$m	82.1	103.7	137.4	193.4
Administrative expenses	$m	6.6	6.6	7.6	9.1
Assets—					
Advances on mortgages(*c*)	$m	880.1	891.9	920.4	1,044.8
Other assets	$m	21.7	25.9	29.8	29.0
Total assets/total liabilities	$m	901.9	917.9	950.2	1,073.8
Liabilities—					
Investing members' funds	$m	31.1	32.0	32.7	33.4
Borrowing members' funds	$m	161.2	159.9	152.6	151.5
Loans due to governments	$m	346.8	371.5	405.6	529.6
Other liabilities	$m	362.7	354.5	359.4	359.3

(*a*) At the balance dates of societies within the financial year shown. (*b*) Co-operative housing and other terminating societies. (*c*) Net advances may be derived by subtracting "Borrowing members' Funds".

CREDIT UNIONS

A credit union (or co-operative credit society) is defined as an organisation that: (i) is registered under relevant State or Territory legislation; and (ii) operates on a co-operative basis by borrowing predominantly from, and providing finance to, its own members.

Credit union annual financial account statistics were first collected on a national basis from all registered credit unions for the year 1974–75. The 738 credit unions approached for 1974–75 information had 908,712 members, while the membership of the 721 credit unions approached for 1975–76 was 1,028,554. Comprehensive financial account statistics are provided in the annual bulletin *Credit Unions: Assets, Liabilities, Income and Expenditure* (5618.0).

Statistics on the housing finance operations of credit unions are provided on page 565, while on page 554 are summary statistics on the financial operations, assets and selected liabilities of credit unions registered under the *Financial Corporations Act* 1974 which have assets in Australia exceeding $5 million.

CREDIT UNIONS: LIABILITIES AND ASSETS(*a*)

($ million)

Liabilities	*1974–75*	*1975–76*	*Assets*	*1974–75*	*1975–76*
Share capital and reserves:			Amount owing on loans(*d*)	532.9	700.4
Paid up share capital	7.7	8.5	Cash on hand	1.2	1.8
Reserves—			Deposits with—		
Statutory	3.7	5.3	Banks	23.9	26.1
Other(*b*)	−2.6	−1.2	Credit Union Leagues or Associations	25.9	37.3
Deposits	592.9	777.3	Other	(*e*)	24.6
Loans	20.5	29.2	Bills, bonds and other securities	(*e*)	13.8
Accounts payable	(*c*)	5.6	Accounts receivable	(*e*)	3.7
Other liabilities	6.1	4.0	Physical assets	13.0	19.3
			Other assets	31.3	1.9
Total liabilities	628.3	828.8	**Total assets**	628.3	828.8

(*a*) At the balance dates of credit unions within the financial year shown. (*b*) Includes accumulated surpluses and deficits. (*c*) Not available for 1974–75; included in "Other liabilities". (*d*) These figures are net of unearned interest and allowance for doubtful debts. (*e*) Not available for 1974–75; included in "Other assets".

CREDIT UNIONS: INCOME AND EXPENDITURE

($ million)

Expenditure	*1974–75*	*1975–76*	*Income*	*1974–75*	*1975–76*
Interest on:			Interest from:		
Deposits	38.8	52.2	Loans	62.1	85.9
Loans	1.7	1.8	Deposits	5.2	6.7
Wages and salaries	12.9	17.1	Income from holdings of securities	(*b*)	0.7
Administrative expenses	(*a*)	10.3			
Insurance premiums paid	2.4	3.1	Management fees		1.0
Allowance for doubtful debts	1.7	2.6	Bad debts recovered	0.4	0.4
Other expenditure	11.3	5.0	Other income	1.8	1.0
Total expenditure	68.9	92.1	**Total income**	69.5	95.7

(*a*) Not available; included in "Other expenditure". (*b*) Not available; included in "Other income".

SHORT TERM MONEY MARKET

Authorised Money Market Corporations

For some years prior to 1959 leading stockbrokers were actively engaged in operations which formed the basis of a short term money market in Australia. The stockbrokers' operations involved the acceptance of short-term funds which were secured against government securities. These operations were severely limited by the lack of suitable short term securities and by liquidity constraints. In February 1959 the Central Bank established the Official Short Term Money Market by making available to selected dealers lender of last resort facilities.

There are nine authorised money market dealers. They are required by the Reserve Bank to (i) accept loans overnight, at call or for fixed periods, in minimum amounts of $50,000 and invest these funds in Australian Government and other approved securities; (ii) at all times be willing traders in the buying and selling of approved securities; (iii) have a minimum paid-up capital of $400,000 and adhere to a maximum limit on the ratio of loans to shareholders' funds; and (iv) consult regularly with the Reserve Bank on all market matters and furnish detailed information about their portfolios, operations, interest rates, balance sheets and profit and loss accounts. Under the lender of last resort arrangements dealers may borrow from the Reserve Bank for a minimum of seven days and at a rate designed to discourage excessive recourse to the facility.

The following table contains details of selected liabilities and assets, and interest rates. Additional information on authorised dealers collected under the *Financial Corporations Act* 1974 is provided on page 554.

SHORT-TERM MONEY MARKET: SELECTED LIABILITIES AND ASSETS AND INTEREST RATES OF AUTHORISED DEALERS

(*Source:* **Reserve Bank of Australia**)

Month	*Liabilities to clients*			*Asset holdings (face value)*			*Interest rates on loans accepted during month*				*Weighted average interest rate on loans outstanding (c)*
							At call		*For fixed periods*		
	All trading banks	*Other clients*	*Total*	*C'wealth Govt securities (a)*	*Commercial bills(b)*	*Banks' certificates of deposit*	*Minimum per cent per annum*	*Maximum per cent per annum*	*Minimum per cent per annum*	*Maximum per cent per annum*	*per cent per annum*
	Average of weekly figures—($ million)										
June—											
1973 .	149.6	670.2	819.8	732.2	40.8	79.7	2.00	8.75	2.00	7.00	4.70
1974 .	65.4	322.0	387.4	285.9	79.2	42.2	0.50	13.00	1.00	13.00	6.82
1975 .	167.4	558.7	726.1	613.3	83.7	47.9	1.50	14.10	3.00	11.50	6.72
1976 .	182.3	636.1	818.4	749.7	129.2	61.3	2.00	14.00	4.50	9.50	8.03
1977 .	144.8	701.5	846.3	829.5	129.8	21.6	3.00	15.30	5.00	13.80	9.33

(*a*) Within 5 years of maturity. (*b*) Accepted or endorsed by banks. (*c*) To June 1975 weighted average of rates on clients' loans outstanding on each Wednesday of the month. Thereafter weighted average of rates paid on all days of the four or five weeks ending on the last Wednesday of the month.

Money Market Corporations

There are also companies without Reserve Bank lender of last resort facilities who operate in a similar manner to authorised dealers. These companies are recognised under the *Financial Corporations Act* 1974 in the category of money market corporations which consist of registered corporations whose short term borrowings are a substantial proportion of their total outstanding provision of finance, which is mainly in the form of loans to authorised dealers in the short term money market and other liquidity placements, business loans and investments in Government, commercial and corporate paper.

The category of money market corporations also includes registered corporations providing short term finance but themselves financed by related corporations with funds raised on a short term basis, as well as corporations which borrow principally short term and lend predominantly to related money market corporations.

Statistics on money market corporations registered under the *Financial Corporations Act* 1974 are contained in the table on page 554.

FINANCE COMPANIES

Information presented on finance companies in Australia in the following tables has been compiled from returns collected under the *Census and Statistics* Act 1905. For the purposes of these statistics a finance company is defined as an incorporated company mainly engaged in providing to the general public (businesses as well as persons in their private capacity) credit facilities of the following types: instalment credit for retail sales, personal loans, wholesale finance, factoring, other consumer and commercial loans, financial leasing of business plant and equipment and bills of exchange. A company is mainly engaged in providing these credit facilities if 50 per cent or more of its assets consist of balances outstanding with respect to these types of financing, or if 50 per cent or more of its income is derived from such types of financing.

The statistics for any financial year relate only to those finance companies which individually or as a group of related finance companies had balances outstanding in the prescribed types of financial agreements of $500,000 or more, on an Australia-wide basis, as at 30 June on the previous financial year. The 216 finance companies that met this criterion at the 1975–76 annual census of finance companies accounted for 99.2 per cent of the balances outstanding of all finance companies.

Comprehensive information on the transactions and financial structure of finance companies is available in the monthly bulletin *Finance Companies* (5614.0) and the annual bulletin *Finance Companies: Assets, Liabilities, Income and Expenditure* (5616.0) respectively. Information on foreign ownership and control of finance companies is given in Chapter 24, Overseas Transactions.

Although individual corporations in the *Financial Corporations Act* 1974 categories of finance companies, general financiers and money market corporations may meet the above definition of a finance company, differences in definitions, scope and coverage generally mean that the statistics on page 554 for those categories are not comparable with the statistics for finance companies shown below.

FINANCE COMPANIES: ASSETS, LIABILITIES, INCOME AND EXPENDITURE(*a*)

($ million)

	1973–74	*1974–75*	*1975–76*
Assets—			
Balances outstanding on finance agreements(*b*)	7,839.8	9,004.4	9,940.0
Cash on hand and bank deposits	39.9	62.5	77.0
Loans to authorised money market dealers	56.8	40.5	22.0
Investments in shares and securities	239.2	302.3	353.9
Physical assets	160.8	154.1	228.6
Other assets	175.2	225.6	387.8
Total assets	**8,511.7**	**9,789.1**	**11,009.3**
Liabilities—			
Paid-up capital	531.5	584.6	667.4
Reserves	321.9	334.0	378.6
Unappropriated profits	95.5	152.5	228.4
Borrowed funds—			
Bank loans and overdrafts	171.9	280.9	270.9
Debentures	3,526.6	4,042.3	4,778.8
Secured and unsecured loans	3,114.9	3,467.4	3,651.1
Other liabilities	749.3	927.4	1,033.9
Total liabilities	**8,511.7**	**9,789.1**	**11,009.3**
Income for year—			
Interest from finance agreements	912.7	1,140.1	1,331.6
Other income	89.9	150.3	177.2
Total income	**1,002.6**	**1,290.3**	**1,508.9**
Expenditure for year—			
Interest on borrowed funds	495.2	761.0	845.3
Wages, salaries and allowances, directors fees and emoluments	89.4	108.7	132.3
Other expenditure	285.1	252.6	284.8
Total expenditure	**869.7**	**1,122.3**	**1,262.4**

(*a*) At the balance date of companies within the financial year shown. (*b*) Excludes unmatured income of $1,218.2m in 1973-74, $1,313.9m in 1974-75 and $1,635.0m in 1975-76.

FINANCE COMPANIES: AMOUNT FINANCED AND BALANCES OUTSTANDING CLASSIFIED BY TYPE OF FINANCE AGREEMENT

($ million)

	1973–74	*1974–75*	*1975–76*	*1976–77*
Amount financed during year—				
Instalment credit for retail sales and personal loans	1,487.7	1,490.0	1,903.3	2,179.2
Finance for housing	1,490.1	573.9	989.9	1,195.6
Wholesale finance	1,845.6	2,143.5	2,873.6	3,869.2
Factoring and other commercial loans	2,433.3	1,514.0	1,882.5	2,247.4
Leasing of business plant and equipment(*a*)	668.2	586.2	1,016.4	1,408.4
Bills of exchange(*b*)	2,105.5	3,578.8	4,179.6	5,421.3
Total amount financed on finance agreements(*c*)	**10,030.4**	**9,886.4**	**12 845.3**	**16,321.1**
Balances outstanding at 30 June—				
Instalment credit for retail sales and personal loans	2,285.9	2,501.7	3,034.0	3,655.5
Finance for housing	2,444.0	2,238.6	2,390.1	2,748.3
Wholesale finance	284.4	360.9	589.3	913.2
Factoring and other commercial loans	2,823.9	2,998.9	3,235.7	3,746.3
Leasing of business plant and equipment(*d*)	1,234.9	1,430.0	1,923.8	2,734.2
Bills of exchange	410.5	547.8	658.6	718.2
Liquidity placements and loans to non-finance companies in group	332.2	669.1	593.7	575.4
Total balances outstanding on finance agreements(*e*)	**9,815.7**	**10,747.0**	**12,425.2**	**15,091.1**

(*a*) Refers to the value of goods newly leased. (*b*) Refers to amounts paid for bills acquired. (*c*) Excludes amounts for liquidity placements and loans to non-finance companies in group. (*d*) Refers to the value of leasing agreements. (*e*) Includes unmatured income.

PASTORAL FINANCE COMPANIES

Pastoral finance companies are corporations whose provision of finance is predominantly in the form of loans to rural producers largely associated with the provision of rural services. The following table contains statistics compiled from returns supplied by these corporations to the Reserve Bank. Further information on pastoral finance companies is available on page 554 in the table relating to corporations registered under the *Financial Corporations Act* 1974.

PASTORAL FINANCE COMPANIES: ASSETS AND LIABILITIES
(*Source:* Reserve Bank of Australia)
($ million)

	1972	*1973*	*1974*	*1975*	*1976*
Assets at 30 June—					
Cash and deposits with banks	10.0	14.9	14.5	11.2	10.5
Loans to authorised money market dealers	15.0	19.1	10.5	5.7	12.1
Other short term assets(*a*)	60.8	171.7	127.0	149.1	203.4
Aust. Govt securities	65.7	58.3	21.4	27.8	27.7
Advances and sundry debtors—					
Rural	292.5	303.1	371.1	279.4	254.4
Other	32.1	45.7	61.8	61.5	58.6
Stocks	48.9	67.2	95.8	114.8	137.7
Fixed assets	185.3	190.0	205.3	236.4	242.6
Other assets	63.4	69.2	77.4	80.4	109.1
Total assets	**773.6**	**939.1**	**984.7**	**966.1**	**1,056.1**
Liabilities at 30 June—					
Shareholders' funds	183.3	199.1	210.7	259.7	278.1
Balances due to banks	57.1	54.7	121.8	74.7	73.3
Clients' credit balances	35.1	57.6	48.9	37.5	37.1
Debentures, notes and deposits—					
Maturing within 12 months	137.6	207.5	176.9	209.0	275.6
Other	86.4	94.3	94.4	105.7	103.7
Other outside liabilities	150.2	196.6	194.1	192.8	199.8
Overseas liabilities	124.0	129.3	137.9	86.7	88.5
Total liabilities	**773.6**	**939.1**	**984.7**	**966.1**	**1,056.1**

(*a*) Excludes Australian Government securities.

FINANCIAL CORPORATION STATISTICS

The statistics provided in the tables below have been compiled from monthly returns supplied to the Australian Bureau of Statistics by corporations registered under the *Financial Corporations Act* 1974 and which have Australia-wide assets exceeding $5 million. A summary of the objects and content of the *Financial Corporations Act* is provided on page 541. Information is also collected quarterly from registered corporations whose comparable asset figures exceed $1 million but not $5 million. Detailed statistics on all corporations registered under the Act are published in the monthly bulletin *Financial Corporations Statistics* (5617.0).

Descriptions of the categories *building societies, credit unions/co-operatives, authorised money market dealers, money market corporations* and *pastoral finance companies* appear in the respective parts of this chapter. Descriptions of the other categories are as follows:

Finance Companies—comprising corporations not included in the categories *building societies, credit co-operatives, authorised money market dealers, money market corporations* or *pastoral finance companies* which rely substantially on borrowings in financial markets in Australia and/or from abroad and whose provision of finance is predominantly in the form of business and commercial lending, instalment credit to finance retail sales by others and/or other loans to individuals.

General financiers—comprising corporations which lend predominantly for business and commercial lending, instalment credit to finance retail sales by others and/or other loans to individuals but which do not rely substantially on borrowings in financial markets in Australia and from abroad.

Intra group financiers—comprising corporations not elsewhere categorised which predominantly borrow within a corporation group and/or provide finance by lending within their corporation group or by investing in financial markets.

Other financial corporations—comprising registered corporations not included in any other specific category.

FINANCIAL CORPORATIONS STATISTICS: FINANCIAL OPERATIONS AND SELECTED LIABILITIES AS AT 30 JUNE 1977 FOR CORPORATIONS WITH ASSETS IN AUSTRALIA EXCEEDING $5 MILLION

($ million)

Category	*Number of corporations*	*Financial operations*			*Selected liabilities*		
		Unused lending commitments(a)	*Borrowing lines and standby facilities available and unused from—(b)*		*Paid up capital*	*Borrowings from—*	
			Residents	*Non-residents*		*Residents*	*Non-residents*
Building societies	93	293.1	217.8	4.0	(*c*)17.8	(*c*)5,958.0	6.1
Credit co-operatives	49	3.2	5.0	..	(*c*)	(*c*)557.2	..
Authorised money market dealers	9	15.1	..	..	24.0	1,042.7	3.6
Money market corporations	48	633.6	336.3	445.9	174.3	3,010.6	101.6
Pastoral finance companies	14	..	42.7	..	115.4	348.6	2.7
Finance companies	82	574.3	397.2	231.2	711.2	10,666.2	291.5
General financiers	55	22.8	72.6	19.9	63.9	572.9	24.4
Intra group financiers	10	0.5	0.3	6.3	46.1	250.6	18.7
Other financial corporations	3	..	5.5	..	1.0	39.0	..
Total	**363**	**1,542.7**	**1,077.2**	**707.3**	**1,153.8**	**22,445.7**	**448.7**

(*a*) Includes all binding commitments to provide funds to residents of Australia other than those that are of a type which is usually completely disbursed within 30 days of approval; excludes commitments that do not have a quantifiable limit. (*b*) Includes all binding commitments (i.e. borrowing lines and standby facilities) to provide funds to reporting corporations; excludes standby facilities which do not have a quantifiable limit. (*c*) 'Paid-up capital' includes only fixed share capital; withdrawable share capital is included in 'Borrowings from residents'.

FINANCIAL CORPORATIONS STATISTICS: ASSETS AT 30 JUNE 1977 OF CORPORATIONS WITH ASSETS IN AUSTRALIA EXCEEDING $5 MILLION

($ million)

Category	*Cash and bank deposits*	*Loans to authorised dealers in the STMM and other short term placements(a)*	*Government and public authority securities*	*Bills of exchange and promissory notes discounted and held(b)*	*Other financial investments*	*Other assets arising from the provision of finances (c)*	*All other assets in Australia*	*Total assets in Australia*	*Assets overseas*
Building societies	780.8	86.4	128.6	173.8	24.8	4,821.6	178.2	6,194.3	..
Credit co-operatives	23.7	28.4	6.8	1.0	0.7	499.6	19.8	580.1	..
Authorised money market dealers	28.7	2.0	934.7	167.5	1.5	1.5	11.1	1,147.1	..
Money market corporations	251.2	404.9	123.6	856.0	95.5	1,571.3	50.1	3,352.8	24.5
Pastoral finance companies	18.2	7.9	0.5	0.9	140.0	277.3	310.8	755.8	0.9
Finance companies	39.6	96.4	10.1	128.5	267.0	12,086.3	106.7	12,734.5	6.2
General financiers	5.5	7.4	0.3	12.1	16.9	686.1	19.9	748.4	7.6
Intra group financiers	1.9	(*d*)	0.1	1.2	37.7	223.9	52.1	316.8	0.2
Other financial corporations	8.0	4.4	0.1	..	0.4	24.8	2.7	40.4	..
Total	**1,157.4**	**637.8**	**1,205.1**	**1,341.2**	**584.6**	**20,192.5**	**751.4**	**25,870.1**	**39.4**

(*a*) Includes short term placements that are repayable at call or within 90 days; excludes funds placed with banks and related corporations, and purchases of government securities and bills of exchange. (*b*) Excludes bills that have been drawn or accepted by reporting corporations. (*c*) Includes holdings of bills that have been drawn by reporting corporations and loans that have been re-financed by the sale of bills accepted by reporting corporations. (*d*) Not available separately: included in 'All other assets in Australia'.

LIFE INSURANCE

Statistics in the following tables have been compiled from returns lodged under the *Life Insurance Act* 1945 (*see* page 541) and relate to the life insurance business of companies with head offices in Australia and the Australian business of companies with head offices overseas. Also included are the life business operations voluntarily reported by two State Government Insurance Offices.

Of the forty-nine life offices conducting life insurance business in Australia during 1975, thirty-eight were organised on a partly mutual basis, nine on a wholly mutual basis and two were government offices.

Summary information on foreign ownership and control of life insurance business is shown in Chapter 24, Overseas Transactions. More detailed statistics are available in *Foreign Ownership and Control of Life Insurance Business* (*Advance Release*) 1973 (5310.0) and *Foreign Ownership and Control of Life Insurance Business* 1973 (5311.0).

Information contained in the following two tables does not relate to uniform accounting periods but to the balance dates of organisations falling within the financial years shown.

LIFE INSURANCE OFFICES: LIABILITIES AND ASSETS

($ million)

	1971	*1972*	*1973*	*1974*	*1975*
Liabilities—					
Shareholders' capital—					
Authorised	73.6	73.8	84.8	97.8	119.8
Less: unissued	42.2	38.9	49.6	60.1	73.1
Subscribed capital	31.4	34.9	35.2	37.7	46.7
Paid-up—					
In money	25.9	24.7	25.0	27.4	36.3
Otherwise than money	4.8	9.5	9.5	9.5	9.5
Total paid-up capital	30.6	34.2	34.5	36.9	45.8
Life insurance statutory funds—					
Ordinary business	5,551.2	6,041.0	6,532.3	7,050.3	7,294.5
Industrial business	503.5	525.0	543.8	547.3	551.3
Superannuation business	1,579.1	1,866.3	2,068.2	2,292.6	2,701.2
Total statutory funds	7,633.8	8,432.3	9,144.3	9,890.2	10,547.0
Funds in respect of other classes of business	39.5	47.0	44.6	55.3	75.4
General reserves	106.1	100.9	132.0	220.3	156.1
Profit and loss account balance	6.4	8.8	11.7	14.9	23.4
Total shareholders' capital, insurance funds and reserves	*7,816.4*	*8,623.2*	*9,367.0*	*10,217.6*	*10,847.8*
Other liabilities—					
Deposits	47.6	70.1	84.0	85.7	77.9
Staff provident and superannuation funds	4.5	5.5	7.5	8.7	(*a*)18.2
Claims admitted or intimated but not paid	109.5	112.4	133.1	173.4	210.1
Premiums paid in advance and in suspense	7.5	9.2	6.4	8.0	9.1
Sundry creditors	50.6	50.9	56.0	65.4	82.8
Bank overdraft	47.9	53.3	62.2	48.1	78.8
Reserves and provisions for taxation	58.7	66.2	97.2	136.9	134.9
All other liabilities	32.8	34.7	45.8	25.6	76.9
Total liabilities	**8,175.3**	**9,025.5**	**9,859.2**	**10,769.4**	**11,536.5**
Assets held in Australia—					
Fixed assets—					
Freehold and leasehold property, office premises	948.3	1,164.6	1,384.7	1,664.6	1,979.3
Furniture, etc.	12.1	13.6	17.9	17.4	19.8
Loans—					
On mortgage	1,252.9	1,271.5	1,258.4	1,338.8	1,341.8
On policies	251.8	267.8	266.5	283.2	282.1
Other loans	60.3	62.3	74.6	93.3	87.9
Investments—					
Government securities—					
Australian	1,459.8	1,668.0	1,768.8	1,889.1	2,069.3
Overseas	11.1	10.9	12.6	14.6	23.0
Securities of local and semi-governmental bodies	581.6	650.5	697.1	760.7	791.5
Other investments	1,727.7	1,961.8	2,199.5	2,287.3	2,554.2
Cash on hand, deposit and current account	34.4	52.6	65.6	101.1	140.4
All other assets	224.3	245.2	270.9	330.9	358.5
Total assets held in Australia	*6,564.3*	*7,369.0*	*8,016.7*	*8,780.9*	*9,647.7*
Total assets held overseas	*1,611.0*	*1,656.4*	*1,842.5*	*1,988.5*	*1,888.8*
Total assets	**8,175.3**	**9,025.5**	**9,859.2**	**10,769.4**	**11,536.5**

(*a*) Includes provisions for retirement, long service leave, etc.

LIFE INSURANCE OFFICES: REVENUE AND EXPENDITURE

($ million)

	1971	*1972*	*1973*	*1974*	*1975*
Balance of account at beginning of year—Australia and Overseas	*6,809.6*	*7,541.0*	*8,441.3*	*9,228.6*	*9,890.2*
Revenue—Australia					
Premium income—					
Ordinary business	545.2	613.9	675.7	714.5	756.9
Industrial business	49.2	52.5	56.5	58.9	57.9
Superannuation business	259.2	307.7	354.2	433.4	560.5
Consideration for annuities	13.9	27.4	19.7	20.2	20.3
Net interest dividends and rents	346.2	390.3	410.6	459.8	525.5
Other revenue	90.9	163.5	129.2	161.6	205.4
Total revenue—Australia	*1,304.6*	*1,555.4*	*1,646.1*	*1,848.5*	*2,126.6*
Revenue—Overseas					
Premium income	167.1	177.2	189.2	227.5	204.9
Net interest dividends and rents	91.4	96.4	101.7	119.3	117.7
Other revenue	22.7	40.2	34.0	119.7	58.0
Total revenue—Overseas	*281.3*	*313.7*	*324.9*	*466.3*	*380.6*
Total revenue	**1,586.0**	**1,869.1**	**1,971.0**	**2,314.8**	**2,507.2**
Total	**8,395.6**	**9,410.1**	**10,412.3**	**11,543.4**	**12,397.4**
Expenditure—Australia					
Payments on policies					
Claims	267.5	309.7	352.5	406.8	454.9
Surrenders	152.4	175.4	203.0	297.1	383.1
Annuities	5.0	6.3	3.3	3.5	3.8
Bonuses paid in cash	2.7	3.3	3.8	4.8	9.4
Expenses of management—					
Commission	82.6	92.3	100.8	109.6	128.1
Other	95.4	108.4	125.7	160.2	191.2
All other expenses	91.8	101.6	218.0	353.4	188.2
Total expenditure—Australia	*697.5*	*797.1*	*1,007.1*	*1,335.4*	*1,358.7*
Expenditure—Overseas					
Payments on policies	105.9	108.5	117.6	136.5	143.4
Expenses of management	41.6	44.9	48.5	60.7	64.8
All other expenditure	9.5	18.2	10.7	120.8	283.5
Total Expenditure—Overseas	*157.1*	*171.7*	*176.7*	*317.8*	*491.7*
Total expenditure	**854.6**	**968.8**	**1,183.7**	**1,653.2**	**1,850.4**
Balance of account at end of year—Australia and Overseas	*7,541.0*	*8,441.3*	*9,228.6*	*9,890.2*	*10,547.0*
Total	**8,395.6**	**9,410.1**	**10,412.3**	**11,543.4**	**12,397.4**

LIFE INSURANCE OFFICES: NEW LOANS PAID OVER(*a*) BY CLASS OF SECURITY

($ million)

Class of security	*1971*	*1972*	*1973*	*1974*	*1975*
Mortgage of real estate	157.5	133.0	176.6	199.0	120.3
Companies policies	65.6	58.4	50.8	75.1	56.7
Other	10.4	19.5	34.0	43.0	26.0

(*a*) Excludes advances on premiums

LIFE INSURANCE: SUMMARY

	Insurance and endowment policies			*Annuity policies*	
	Number of policies	*Sum insured ($ million)*	*Annual premiums ($ million)*	*Number of policies*	*Annuities per annum ($ million)*
ORDINARY BUSINESS					
New policies issued—					
1971	569,370	4,882.6	91.5	66	0.1
1972	575,650	5,545.2	100.4	74	0.1
1973	552,422	6,504.8	96.6	78	0.1
1974	508,904	6,900.0	94.4	26	0.1
1975	488,429	7,917.6	100.7	13	0.1
Policies discontinued or reduced(*a*)—					
1971	293,710	1,398.9	28.3	109	..
1972	324,372	1,777.0	34.0	91	0.1
1973	197,401	2,016.9	34.0	157	0.1
1974	424,767	2,613.7	50.0	173	0.1
1975	470,833	3,439.6	56.2	140	0.1
Policies existing at end of—					
1971	5,182,672	22,914.5	525.7	1,906	1.1
1972	5,433,950	26,682.7	592.2	1,890	1.2
1973	5,788,971	31,170.6	654.7	1,811	1.2
1974	5,873,108	35,456.8	699.2	1,664	1.2
1975	5,890,704	39,934.8	743.6	1,537	1.2
INDUSTRIAL BUSINESS					
New policies issued—					
1971	135,384	231.4	8.0	..	..
1972	133,700	255.3	8.7	..	..
1973	123,239	263.0	8.9	..	..
1974	85,675	216.4	7.1	..	..
1975	63,043	188.5	6.2	..	..
Policies discontinued or reduced(*a*)—					
1971	165,067	115.0	4.5	..	..
1972	215,164	142.4	5.3	..	..
1973	193,159	153.7	5.2	..	..
1974	230,794	187.1	7.2	..	..
1975	207,109	166.1	6.1	..	..
Policies existing at end of—					
1971	2,470,750	1,328.7	51.8	..	..
1972	2,389,286	1,441.5	55.2	..	..
1973	2,319,366	1,550.9	58.9	..	..
1974	2,174,247	1,580.1	58.9	..	..
1975	2,030,181	1,602.5	58.9	..	..
SUPERANNUATION BUSINESS					
New policies issued—					
1971	78,005	2,785.3	72.4	45	12.9
1972	86,394	3,015.2	78.8	59	14.6
1973	72,424	3,768.6	94.1	42	14.3
1974	89,778	5,534.7	139.2	38	17.4
1975	115,937	6,919.4	176.7	27	27.7
Policies discontinued or reduced(*a*)—					
1971	87,206	1,077.6	29.4	28	4.7
1972	67,694	1,324.0	32.9	43	7.1
1973	113,035	1,759.4	42.4	3	9.1
1974	94,932	1,948.8	48.8	60	14.0
1975	82,091	2,750.2	65.8	132	12.2
Policies existing at end of—					
1971	690,451	9,505.6	254.5	980	39.6
1972	709,151	11,196.7	300.5	996	47.0
1973	668,540	13,205.9	352.1	1,035	52.3
1974	663,386	16,791.8	442.4	1,013	55.7
1975	697,232	20,961.0	553.3	908	71.2

(*a*) Includes policies matured, surrendered, forfeited, transferred to overseas registers, converted to other classes of business, etc.

PENSION AND SUPERANNUATION SCHEMES

Private superannuation, pension and retiring allowance schemes

Since 1965 surveys of selected private pension funds have been made, but, as the sample has not been rebased in the intervening period, it is not known to what extent those currently included in the sample represent the whole field.

The statistics do not relate to uniform accounting periods but to the balance dates of societies falling within the financial years shown.

SELECTED SEPARATELY CONSTITUTED PRIVATE PENSION FUNDS: ASSETS(*a*)

($ million)

	Cash in hand or in bank	Aust. Govt securities	Local ana semi-government securities	Loans on mortgage		Company debentures, notes, etc(*b*)	Shares in companies	Land and buildings	All other assets (*c*)	Total assets	Less sundry creditors, etc.	Amount of funds in Australia
				To companies	Other							
1971–72 .	35.0	280.9	227.8	102.2	51.5	345.3	449.5	34.2	46.5	1,572.8	10.1	1,562.7
1972–73 .	36.2	311.3	235.8	137.9	35.7	371.1	506.7	43.7	70.1	1,748.4	12.8	1,735.7
1973–74 .	32.2	353.3	242.8	148.8	46.8	392.9	568.5	53.2	100.9	1,939.5	14.4	1,925.0
1974–75 .	41.8	401.4	254.9	173.6	39.8	431.9	614.7	74.2	137.5	2,169.7	13.7	2,156.0
1975–76 .	42.4	479.9	274.8	187.4	34.7	500.4	719.8	121.4	151.8	2,512.7	18.4	2,494.3

(*a*) Book values at balance dates. (*b*) Includes other loans to companies. (*c*) Includes loans to authorised dealers in the short-term money market and loans to building societies.

SELECTED SEPARATELY CONSTITUTED PRIVATE PENSION FUNDS: INCOME AND EXPENDITURE

($ million)

INCOME

	Employees' contributions	Employers' contributions	Interest on Aust. Govt local and semi-government securities	Other interest, dividends and rent	Profit from sale or revaluation of assets	Other income(*a*)	Total income
1971–72 . .	48.0	91.7	30.6	56.0	16.2	9.0	251.5
1972–73 . .	59.0	106.8	35.8	65.0	18.5	6.7	291.9
1973–74 . .	68.0	146.4	33.6	79.9	8.8	5.1	341.8
1974–75 . .	86.6	196.0	40.9	98.6	3.6	11.2	436.9
1975–76 . .	102.1	245.7	48.1	116.2	16.1	35.5	563.8

EXPENDITURE

	Pensions paid			Lump sum payments				Loss on sale or revaluation of assets	Other expenditure (*b*)	Total expenditure
				To former employees						
	Ex-employees	Widows or children	Total	On retirement	On resignation or dismissal	To widows or children	Total			
1971–72 .	28.6	4.4	33.0	31.3	20.0	4.6	55.9	3.4	5.3	97.3
1972–73 .	31.7	4.9	36.6	43.1	23.0	5.9	72.0	2.0	10.1	120.7
1973–74 .	36.8	5.6	42.4	45.3	27.3	5.9	78.5	19.3	10.5	150.7
1974–75 .	42.6	6.5	49.1	52.4	31.0	6.6	90.0	21.3	38.7	199.1
1975–76 .	48.5	7.4	55.9	64.4	33.3	8.1	105.8	3.1	43.2	208.0

(*a*) Includes receipts from life insurance offices, sub-underwriting commissions, etc. (*b*) Includes administrative expenses payable from funds, payments to life insurance offices, etc.

Public authority pension and superannuation schemes

The Australian Government and all State Governments have established pension and superannuation schemes for their employees. These schemes are operated through funds to which both the Governments and their employees make contributions. Employees of local government and semi-government authorities are covered either by the Australian and State Government schemes or by a separate scheme of the authority which is operated either through a separately constituted fund or through a life insurance office.

The statistics below cover Parliamentary pension and superannuation schemes, coal and oil-shale mine workers' superannuation schemes and other schemes operated through separately constituted funds. For more detailed information on these schemes refer to the annual publication *Public Authority Pension and Superannuation Schemes* (5511.0).

PUBLIC AUTHORITY PENSION AND SUPERANNUATION SCHEMES OPERATED THROUGH SEPARATELY CONSTITUTED FUNDS

	1970–71	*1971–72*	*1972–73*	*1973–74*	*1974–75*
			($ million)		
Income—					
Contributions—					
Employees	159.8	195.7	217.0	249.7	323.1
Employing authorities	178.8	227.3	246.2	279.5	356.9
Interest, dividends and rent	119.5	136.9	147.6	157.0	196.9
Transfers			1.1	10.2	8.3
Other income			13.3	10.9	14.4
Total income	**458.0**	**559.8**	**625.2**	**707.4**	**899.7**
Expenditure—					
Pensions	169.5	202.8	224.7	239.8	297.5
Lump sum payments—					
On retirement, death, resignation or dismissal(*a*)	90.6	108.4	101.3	131.2	198.7
Gratuities			3.9	2.3	3.7
Other expenditure			13.4	23.3	53.0
Total expenditure	**260.1**	**311.2**	**343.3**	**396.6**	**552.9**
Assets at end of year—					
Cash—					
Deposits with Treasury	60.5	66.1	81.0	95.6	113.4
Other deposits and cash	32.5	29.9	29.6	92.0	88.9
Australian Government securities	167.2	189.7	210.1	177.1	204.6
Local and semi-government securities	1,106.3	1,222.0	1,315.5	1,289.6	1,369.5
Mortgages—					
Housing	39.6	44.2	48.6	62.6	70.5
Other	221.3	287.2	383.9	443.4	527.3
Loans to building societies	34.9	52.8	48.2	48.6	56.1
Company shares, debentures and notes	122.5	159.5	219.3	248.6	310.0
Other assets	130.9	153.1	170.2	174.7	244.2
Total assets(*b*)	**1,915.8**	**2,204.4**	**2,506.4**	**2,632.2**	**2,984.6**
Less Sundry creditors, etc.	22.5	32.3	52.3	64.7	63.8
Accumulated funds(*b*)	**1,893.3**	**2,172.2**	**2,454.1**	**2,567.5**	**2,920.8**
			(No.)		
Contributors at end of year	640,365	694,810	710,093	669,305	722,680
Pensioners at end of year—					
Ex-employees	80,195	81,715	85,572	68,689	63,019
Widows	38,344	45,180	49,379	44,256	36,844
Children	7,256	7,654	7,770	5,403	3,656

(*a*) Includes refunds of contributions to continuing members. (*b*) Includes assets of the Voluntary Savings Scheme of the State Superannuation Fund in South Australia.

PUBLIC AUTHORITY PENSION AND SUPERANNUATION SCHEMES OPERATED THROUGH LIFE INSURANCE OFFICES

		1970–71	*1971–72*	*1972–73*	*1973–74*	*1974–75*
Income—						
Contributions—						
Employees	$ million	12.2	10.1	11.3	12.2	16.4
Employing authorities	$ million	17.2	13.9	15.9	16.6	26.0
Contributors at end of year	No.	91,594	62,371	62,116	60,985	63,476

GENERAL INSURANCE

The following statistics have been compiled from returns collected under the *Census and Statistics Act* 1905 and relate to the operations of:

(*a*) *Bodies Corporate* authorised to carry on insurance business under the *Insurance Act* 1973 (*see* page 541);
(*b*) *Brokers* in respect of business placed with overseas insurers; and
(*c*) *Government instrumentalities,* i.e. State Government Insurance Offices and Australian Government and State Government instrumentalities in respect of their general insurance business.

These statistics are based on the following definitions:

Premiums represent the full amount receivable in respect of policies issued or renewed during the year less returns, rebates and bonuses paid or credited to policy holders during the year. (Since 1974–75 stamp duty has been excluded from premiums.) They are not adjusted to provide for premiums unearned at the end of the year.

Claims comprise payments made during the year plus the estimated amount of outstanding claims at the end of the year less the estimated amount of outstanding claims at the beginning of the year. Salvage and other amounts recoverable have been deducted.

Information contained in the following tables does not relate to uniform accounting periods but to the financial years of the organisations which ended during the years shown.

GENERAL INSURANCE: PREMIUMS AND CLAIMS BY PRINCIPAL CLASS OF BUSINESS

($ million)

Class of business	*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*
	PREMIUMS				
Fire(*a*)	170.9	181.6	208.8	241.5	297.6
House Owners' and House-holders'	86.4	104.2	127.3	163.8	195.8
Contractors' All Risks	10.0	10.0	11.4	12.1	14.8
Marine and Aviation	67.3	64.5	69.1	80.7	87.1
Motor Vehicle Comprehensive	300.3	329.9	366.1	473.4	605.2
Compulsory Third Party (Motor Vehicle)	172.5	183.9	206.4	306.8	444.8
Employers Liability(*b*)	236.5	291.2	380.2	580.7	950.7
Public Liability(*c*)	33.3	36.5	41.5	45.3	64.0
All other	108.5	123.5	139.8	155.2	187.2
Total	**1,185.8**	**1,325.4**	**1,550.7**	**2,059.6**	**2,847.4**
	CLAIMS				
Fire(*a*)	77.5	83.7	113.6	196.8	129.5
House Owners' and House-holders'	35.0	41.1	52.6	175.3	97.9
Contractors' All Risk	5.2	5.4	6.9	16.7	11.4
Marine and Aviation	28.4	28.5	45.0	61.3	53.0
Motor Vehicle Comprehensive	217.9	223.4	268.9	349.6	392.9
Compulsory Third Party (Motor Vehicle)	181.9	211.2	284.7	366.7	417.4
Employers Liability(*b*)	165.0	245.0	353.8	494.1	577.8
Public Liability(*c*)	13.5	17.3	23.2	31.7	37.6
All other	49.9	50.5	59.4	76.8	79.9
Total	**774.3**	**906.1**	**1,208.2**	**1,769.1**	**1,797.2**

(*a*) Includes Sprinkler Leakage, Crop, Hailstone and Loss of Profits insurance. (*b*) Excludes workers' compensation in coal-mining industry. (*c*) Includes Product Liability and Professional Indemnity insurance.

GENERAL INSURANCE: SELECTED ITEMS OF EXPENDITURE

($ million)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Contributions to fire brigades etc.	31.1	34.8	43.3	53.0	71.8
Commission and agent charges	97.3	105.4	120.3	132.7	159.2
Expenses of management	199.3	216.8	247.8	301.7	340.1
Taxation	37.2	38.2	46.3	(*a*)25.7	(*a*)20.1
Other underwriting expenses	n.a.	n.a.	n.a.	13.6	11.4

(*a*) Since 1974-75 Income tax and stamp duty have been excluded.

Summary information on foreign ownership and control of general insurance business is shown in Chapter 24. Overseas Transactions. More detailed statistics are available in *Foreign Ownership and Control of General Insurance Business* (*Advance Release*) 1972-73 (5308.0) and *Foreign Ownership and Control of General Insurance Business* 1972–73 (5309.0).

UNIT TRUSTS, LAND TRUSTS AND MUTUAL FUNDS

Statistics of operations of unit trusts, land trusts and mutual funds are shown below. Details of superannuation funds conducted by unit trust management companies are not included in these tables.

TRUSTS AND FUNDS: TOTAL MARKET VALUE AND TRANSACTIONS

($ million)

	Total market value at end of period(a)	*Cash transactions—trust units and fund shares*		*Purchases and sales of investments(b)*	
		Total amount received(c)	*Total amount paid(d)*	*Purchases (e)*	*Sales (f)*
1972–73 . .	380.3	79.1	32.7	111.5	71.5
1973–74 . .	368.6	68.8	38.6	96.1	50.6
1974–75 . .	356.0	36.9	47.8	38.6	49.3
1975–76 . .	407.6	50.0	30.8	85.3	60.7
1976–77 . .	426.3	48.1	34.4	79.4	69.5

(*a*) Includes value of land trusts at valuation. (*b*) Australian Government, local authority and semi-government securities, shares, debentures, unsecured notes, loans, deposits on term or notice of three months or longer, land and buildings, etc. (*c*) Includes re-issues and new issues. Includes fees and expenses. (*d*) Includes those units and fund shares intended for re-issue. (*e*) Payments for assets acquired during period. Includes brokerage and stamp duty. (*f*) Receipts for assets sold or redeemed during period. Excludes brokerage and stamp duty.

TRUSTS AND FUNDS: ANALYSIS OF PURCHASES AND SALES OF INVESTMENTS

($ million)

	Shares (incl. preference shares)	*Debentures, unsecured notes, deposits (a)*	*Land, buildings, mortgages*	*Other(b)*	*Total*
Purchases—					
1972–73 . .	22.1	18.2	71.0	0.1	111.5
1973–74 . .	12.3	9.8	73.7	0.3	96.1
1974–75 . .	14.8	8.5	15.3	. .	38.6
1975–76 . .	21.2	15.4	39.9	8.8	85.3
1976–77 . .	13.4	12.5	52.3	1.1	79.4
Sales—					
1972–73 . .	45.3	9.4	15.7	1.1	71.5
1973–74 . .	22.4	10.9	17.1	0.3	50.6
1974–75 . .	14.1	10.7	24.4	0.1	49.3
1975–76 . .	22.3	10.0	26.6	1.8	60.7
1976–77 . .	23.4	17.4	27.3	1.5	69.5

(*a*) Excludes cash on hand and at bank, loans to authorised dealers in the short-term money market, and other deposits under three months' term or notice. (*b*) Includes Australian Government, local and semi-government securities.

AUSTRALIAN INDUSTRY DEVELOPMENT CORPORATION

The Australian Industry Development Corporation was established by the *Australian Industry Development Corporation Act* 1970 and commenced operations on 1 February 1971. Within the objectives and broad policy guidelines defined in the Act, the Corporation operates as an independent commercial enterprise governed by its own Board of Directors.

The Corporation has a capital of $100 million, to be subscribed by the Commonwealth Government in instalments but the whole being available if required to meet obligations. The paid-up capital at 30 June 1977 was $62.5 million.

The central objectives of the Corporation are to promote the development of industries in Australia and support local participation in the ownership and control of industries and resources. Consistent with these objectives and the principle that A.I.D.C. must operate on a commercial basis and assist only in ventures which can demonstrate sound prospects, the Corporation provides finance, obtained by borrowing both in Australia and overseas, for Australian firms (including local firms with foreign partners) engaged in industries concerned with the manufacture, processing, treatment, transportation or distribution of goods, or the development or use of natural resources (including the recovery of minerals), or technology and activities that are connected with or incidental to those industries.

The Corporation's financial participation in a venture is governed by the prevailing terms and conditions under which it can itself obtain loan finance. The capital of the Corporation is provided as a base for its borrowings and is not directly used for assistance to industry projects.

A.I.D.C. provides development capital both for start-up situations and for going concerns. Although the greater part of its financings are loans, it also makes equity investments in industry. Where a company's capital needs can best be met by loan finance, A.I.D.C. does not seek an equity position. It aims to avoid involvement in the management of companies to which it provides financing.

Project investments approved since operations commenced totalled $375 million at 30 June 1977, and financings outstanding in 64 projects was $198 million.

INSTALMENT CREDIT FOR RETAIL SALES

Information relating to instalment credit for retail sales in Australia is given in the following tables More detailed information may be found in the monthly bulletin *Instalment Credit for Retail Sales* (5631.0).

These statistics cover the operations of instalment credit schemes which relate primarily to the financing of retail sales of consumer commodities. In general, the term instalment credit is defined as relating to schemes in which repayment is made by regular predetermined instalments (predetermined by amount or by percentage of amount financed or balance outstanding). Types of instalment credit schemes covered include hire purchase, time payment, budget account and personal loans where these schemes relate primarily to the financing of retail sales of consumer commodities.

Figures for amounts financed exclude interest, hiring charges, insurance, etc. Figures for balances outstanding and collections include interest, hiring charges, insurance, etc.

INSTALMENT CREDIT FOR RETAIL SALES, BY TYPE OF BUSINESS: AMOUNT FINANCED, BY COMMODITY GROUP, COLLECTIONS, AND BALANCES OUTSTANDING, AUSTRALIA

($ million)

	Amount financed during year					*Collections and other liquidations of balances during year*	*Balances outstanding at end of year*
	Motor cars and station wagons		*Other motor vehicles (a)*	*Household and personal goods*	*Total*		
	New	*Used*					
Finance companies—							
1973–74 . .	371.3	469.0	78.9	227.1	1,146.2	1,352.4	1,761.9
1974–75 . .	428.5	413.3	75.4	237.4	1,154.5	1,432.8	1,922.0
1975–76 . .	435.5	539.3	124.7	294.9	1,394.4	1,614.5	2,255.2
1976–77 . .	437.8	630.7	141.4	338.3	1,548.2	1,844.7	2,636.6
Other businesses(*b*)—							
1973–74 . .	1.0	0.8	5.7	219.1	226.5	233.9	174.1
1974–75 . .	0.4	0.4	5.6	239.0	245.4	263.0	174.8
1975–76 . .	0.3	0.1	5.9	237.9	244.1	267.8	172.2
1976–77 . .	0.5	0.3	3.5	254.3	258.7	293.5	161.8
Total all businesses—							
1973–74 . .	372.3	469.5	84.5	446.2	1,372.6	1,586.3	1,935.9
1974–75 . .	428.9	413.7	81.0	476.4	1,399.9	1,695.8	2,096.8
1975–76 . .	435.8	539.4	130.6	532.8	1,638.6	1,882.3	2,427.4
1976–77 . .	438.3	631.0	144.9	592.7	1,806.9	2,138.2	2,798.4

(*a*) Includes new and used motor cycles, boats, caravans, trailers and motor parts and accessories but excludes panel vans, utilities, trucks, tractors and other vehicles normally used for commercial purposes. (*b*) Businesses operating retail establishments, unincorporated finance businesses and businesses other than wholesalers and manufacturers.

INSTALMENT CREDIT FOR RETAIL SALES, BY TYPE OF CREDIT: AMOUNT FINANCED, BY COMMODITY GROUP, AUSTRALIA

($ million)

	Motor cars and station wagons		*Other motor vehicles (a)*	*Household and personal goods*	*Total*
	New	*Used*			
Hire purchase—					
1973–74 . . .	273.3	354.0	64.7	150.4	842.7
1974–75 . . .	310.8	283.5	60.3	132.9	787.5
1975–76 . . .	319.0	380.0	100.6	143.4	943.0
1976–77 . . .	317.9	443.5	110.8	168.5	1,040.7
Other instalment credit—					
1973–74 . . .	99.0	115.2	19.8	295.8	529.8
1974–75 . . .	118.1	130.2	20.7	343.5	612.4
1975–76 . . .	116.8	159.4	30.0	389.4	695.6
1976–77 . . .	120.4	187.5	34.1	424.2	766.2
Total instalment credit					
1973–74 . . .	372.3	469.5	84.5	446.2	1,372.5
1974–75 . . .	428.9	413.7	81.0	476.4	1,399.9
1975–76 . . .	435.8	539.4	130.6	532.8	1,638.6
1976–77 . . .	438.3	631.0	144.9	592.7	1,806.9

(*a*) Includes new and used motor cycles, boats, caravans, trailers and motor parts and accessories but excludes panel vans, utilities, trucks, tractors and other vehicles normally used for commercial purposes.

HOUSING FINANCE FOR OWNER OCCUPATION

A monthly statistical series was introduced in October 1975 to provide information on finance (secured by mortgage or other security, including secured personal loans and contracts of sale) approved by significant lenders to individuals for the construction or purchase of dwellings for owner occupation. Also included is housing finance provided to employees by lenders covered in the collection.

The types of lenders considered for inclusion in these statistics are trading and savings banks, permanent and terminating building societies, finance companies, government housing authorities and other government departments, insurance companies and credit unions. A lender is significant if over a financial year it approves loans to individuals for housing finance for owner occupation in excess of $250,000 or if at the end of a financial year it has balances outstanding on such loans exceeding $2 million.

The table on page 565 provides information classified by type of lender and the use for which approved housing loans are intended (e.g. construction or purchase).

Purchase of newly erected dwellings represents the purchase of dwellings which have been completed or will be completed within a period of twelve months preceding the date of purchase and where the purchaser is, or will be, the first occupant.

Purchase of established dwellings represents the purchase of dwellings which have been completed for a period of greater than twelve months preceding the date of purchase or, if completed within twelve months, where the purchaser is not the original occupant.

The term *dwelling* includes houses and other dwellings where the latter is defined as a self-contained dwelling unit other than a house. (Examples of *other dwellings* are flats, home units, semi-detached cottages, villa units, town houses, etc.)

The term *number of dwelling units* refers to the number of houses and other dwellings for which loans secured by contract of sale or first mortgage only have been approved.

Comprehensive statistics on housing finance for owner occupation are available in the monthly bulletin *Housing Finance for Owner Occupation* (5609.0).

The following table summarises the housing finance operations of the significant lenders.

HOUSING FINANCE FOR OWNER OCCUPATION, 1976-77
($ million)

	Loans approved for—				
	Construction or purchase of dwellings	*Alterations and additions*	*Cancellations of loans previously approved*	*Loans advanced(a)*	*Loans approved but not advanced(a)*
1976-77	5,174.9	344.0	250.5	4,440.8	932.7
Quarter ended:					
Jun. 1976	1,217.4	85.3	68.1	1,110.7	896.8
Sep. 1976	1,286.9	91.7	62.9	1,057.6	943.1
Dec. 1976	1,363.2	92.0	61.4	1,231.8	892.3
Mar. 1977	1,273.5	77.4	63.6	1,023.3	969.0
Jun. 1977	1,251.2	82.9	62.7	1,128.1	932.7

(*a*) Excludes Trading Banks; data not available.

HOUSING FINANCE FOR OWNER OCCUPATION: NUMBER OF DWELLING UNITS FOR WHICH LOANS WERE APPROVED TO INDIVIDUALS, BY THE TYPE OF LENDER, 1976-77

	Banks		*Building societies*					
	Savings	*Trading*	*Per-manent*	*Ter-minating*	*Finance companies*	*Govern-ment*	*Credit Unions and insurance companies*	*Total*
CONSTRUCTION OF DWELLINGS								
1976–77	18,795	8,948	8,427	2,884	2,988	2,420	576	45,038
Quarter ended—								
June 1976	5,679	2,485	1,908	368	980	509	132	12,061
September 1976	5,282	2,485	2,151	983	765	660	158	12,484
December 1976	4,895	2,556	2,079	874	740	611	140	11,895
March 1977	4,303	2,010	2,012	517	734	517	177	10,210
June 1977	4,315	1,897	2,185	510	749	632	161	10,449
PURCHASE OF NEWLY ERECTED DWELLINGS								
1976–77	14,922	5,964	10,780	1,822	1,906	4,777	532	40,703
Quarter ended—								
June 1976	4,191	1,381	1,752	326	573	1,301	120	9,644
September 1976	4,105	1,548	2,611	598	404	1,166	136	10,568
December 1976	3,969	1,533	3,126	501	391	1,150	120	10,790
March 1977	3,423	1,329	2,585	332	548	1,273	146	9,636
June 1977	3,425	1,554	2,458	391	563	1,188	130	9,709
PURCHASE OF ESTABLISHED DWELLINGS								
1976–77	73,023	26,306	45,303	4,421	7,460	8,377	3,165	168,055
Quarter ended—								
June 1976	20,740	7,018	7,826	944	2,557	2,292	955	42,332
September 1976	18,860	7,138	9,893	1,657	1,961	2,596	772	42,877
December 1976	19,133	7,040	12,167	1,241	1,823	2,478	756	44,638
March 1977	17,920	6,486	11,507	857	1,953	1,951	818	41,492
June 1977	17,110	5,642	11,736	666	1,723	1,352	819	39,048
TOTAL								
1976–77	106,740	41,218	64,510	9,127	12,354	15,574	4,273	253,796
Quarter ended—								
June 1976	30,610	10,884	11,486	1,638	4,110	4,102	1,207	64,037
September 1976	28,247	11,171	14,655	3,238	3,130	4,422	1,066	65,929
December 1976	27,997	11,129	17,372	2,616	2,954	4,239	1,016	67,323
March 1977	25,646	9,825	16,104	1,706	3,235	3,741	1,081	61,338
June 1977	24,850	9,093	16,379	1,567	3,035	3,172	1,110	59,206

HOUSING FINANCE FOR OWNER OCCUPATION: VALUE OF LOANS APPROVED TO INDIVIDUALS, BY TYPE OF LENDER, 1976-77

($ million)

	Banks		Building societies				Credit unions and insurance companies	
	Savings	*Trading*	*Permanent*	*Terminating*	*Finance companies*	*Government*		*Total*
CONSTRUCTION OF DWELLINGS								
1976–77	354.1	134.6	212.2	60.1	85.1	48.9	15.5	910.4
Quarter ended—								
June 1976	104.1	37.3	44.4	7.4	24.1	9.5	3.5	230.2
September 1976	95.9	37.0	51.7	19.7	22.0	12.8	4.3	243.4
December 1976	91.9	38.1	51.7	17.7	20.6	12.0	3.9	235.9
March 1977	83.5	30.0	51.7	11.1	20.5	10.5	3.0	210.3
June 1977	82.8	29.5	57.1	11.6	22.1	13.5	4.3	220.7
PURCHASE OF NEWLY ERECTED DWELLINGS								
1976–77	280.1	90.8	275.8	37.8	77.1	94.7	15.0	871.3
Quarter ended—								
June 1976	74.3	22.7	42.1	6.8	20.6	26.2	3.2	195.9
September 1976	74.1	25.2	62.6	12.2	18.9	22.5	3.6	219.0
December 1976	74.3	23.7	80.0	10.2	20.0	21.8	3.0	233.0
March 1977	66.5	19.8	68.0	7.0	18.5	25.1	4.7	209.6
June 1977	65.3	22.0	65.2	8.4	19.6	25.3	3.8	209.6
PURCHASE OF ESTABLISHED DWELLINGS								
1976–77	1,362.9	419.2	1,064.9	92.4	214.3	154.2	85.2	3,393.2
Quarter ended—								
June 1976	359.4	111.7	175.5	19.1	64.2	36.6	24.7	791.3
September 1976	338.0	113.5	220.1	34.0	52.8	45.3	20.7	824.4
December 1976	353.9	111.3	283.8	25.1	54.7	44.9	20.6	894.3
March 1977	343.4	103.3	275.2	18.8	54.2	36.7	21.9	853.6
June 1977	327.6	91.1	285.8	14.4	52.5	27.4	22.1	820.9
TOTAL								
1976–77	1,997.0	644.6	1,552.9	190.3	376.5	297.8	115.7	5,174.9
Quarter ended—								
June 1976	537.8	171.7	261.9	33.3	108.9	72.3	31.4	1,217.4
September 1976	507.9	175.7	334.4	65.9	93.7	80.6	28.6	1,286.9
December 1976	520.1	173.1	415.5	53.1	95.3	78.7	27.4	1,363.2
March 1977	493.4	153.1	394.9	36.9	93.3	72.4	29.6	1,273.5
June 1977	475.7	142.6	408.1	34.4	94.2	66.1	30.2	1,251.2

NEW CAPITAL RAISINGS BY COMPANIES LISTED ON AUSTRALIAN STOCK EXCHANGES

Information relating to capital raised by companies listed on Australian Stock Exchanges is given in the following tables.

These statistics cover capital raised through share and debenture subscriptions and by way of deposits, unsecured notes and loans secured over the entire assets of the company. The following funds are excluded from the collection: (i) all capital raised from Australian banks (other than direct equity investment), i.e. overdrafts, mortgage loans, term loans or debentures; (ii) temporary advances or short-term deposits from any source; and (iii) complete or partial issues by Australian companies on overseas markets taken up through overseas brokers.

Listed companies are companies incorporated in Australia whose shares, debentures or other securities are listed on one or more of the Australian Stock Exchanges. (Prior to September 1973 quarter the statistics for listed companies also included such companies incorporated in Papua New Guinea, but the change did not significantly affect comparability.) For such companies new capital includes: (a) all issues of ordinary shares if any ordinary shares are listed; (b) all issues of preference shares if any preference shares are listed; and (c) all issues of debentures, unsecured notes, secured and unsecured loans and deposits if any shares or other securities are listed.

The following notes relate to specific items in the tables:

New Money

This is the net amount of cash transferred from the 'investing public' to the 'company sector'. For this purpose the *investing public* is defined to include all non-company subscribers, Australian life insurance companies, Australian government and private superannuation funds and banks. In practice, it is necessary to include in *new money* most subscriptions by companies holding less than 5 per cent of the ordinary shares of an issuing company as it is not practicable to separately identify all such subscriptions. However, where large subscriptions by companies holding less than 5 per cent of the ordinary shares in the issuing company are identified they are not included in *new money*. Subscriptions by Australian life insurance companies and Australian government and private superannuation funds are included in *new money* irrespective of their holdings of ordinary shares in the issuing company.

Amount not involving new money

This amount includes cash subscriptions received by issuing companies from associated companies. Also included are amounts which, although subscribed by the 'investing public' (i.e. subscribers other than 'associated companies'), are not retained by the issuing company or its associates, but are used to redeem shares, debentures or unsecured notes, etc., or are used to purchase from individuals existing shares, debentures, etc., in other companies, including existing shares, etc. in associated and subsidiary companies, and therefore do not represent a net transfer of cash from the 'investing public' to the companies. In the tables which follow, the *amount not involving new money* is obtained by deducting from the total cash raised the amount of *new money*.

LISTED COMPANIES: NEW CAPITAL RAISED THROUGH ISSUES OF SHARES(*a*) AND THROUGH DEBENTURES, REGISTERED NOTES, LOANS AND DEPOSITS

($ million)

	Share capital								
	Total amount of issues commenced			*Cash raised during period*			*Debentures, registered notes, etc.*		
	Total amount including premiums etc.	*Type of consideration*							
		Other than cash (b)	*Cash*	*Total (c)*	*Amount not involving new money*	*New money*	*Total amount raised (d)*	*Amount not involving new money (d)*	*New money*
1972–73(*e*) .	712.5	405.0	307.5	362.5	159.3	203.2	3,629.6	3.026.0	603.6
1973–74 .	973.8	610.3	363.4	382.0	116.5	265.6	6,794.5	5,505.6	1,288.9
1974–75 .	399.4	122.3	277.1	296.7	125.6	171.1	6,310.6	5,362.0	948.6
1975–76 .	513.3	129.8	383.5	387.7	55.3	332.3	5,046.7	3,952.0	1,094.4
1976–77 .	829.7	269.7	560.1	524.5	52.9	471.6	7,501.5	6,290.0	1,211.4

(*a*) Includes share subscriptions by overseas investors to issues in Australia. (*b*) Includes bonus issues, conversion issues, issues in exchange for existing shares, etc. (*c*) Includes calls on issues commenced in earlier years. (*d*) Includes conversions, renewals, etc. (*e*) Prior to July 1973 includes details of companies incorporated in Papua New Guinea.

LISTED COMPANIES: NEW MONEY RAISED IN SHARE CAPITAL AND DEBENTURES, REGISTERED NOTES, LOANS AND DEPOSITS—INDUSTRY GROUPS

($ million)

		1972–73(e)	*1973–74*	*1974–75*	*1975–76*	*1976–77*
Manufacturing(*a*) . . .	*Total*	*90.6*	*112.4*	*452.2*	*257.1*	*325.2*
Raised through . . .	Shares	66.6	82.9	84.3	115.0	182.0
	Debentures, etc	23.9	29.5	368.1	142.1	143.2
Finance and Property(*b*) . .	*Total*	*558.9*	*1,344.8*	*439.6*	*921.8*	*1,158.0*
Raised through . . .	Shares	26.7	119.9	18.1	68.5	212.2
	Debentures, etc.	532.2	1,224.8	421.6	853.3	945.8
Commerce(*c*)	*Total*	*27.0*	*35.6*	*125.2*	*78.3*	*40.8*
Raised through . . .	Shares	10.5	20.6	36 0	57.5	9.5
	Debentures, etc.	16.6	15.0	89.2	20.8	31.3
Other Industries(*d*) . . .	*Total*	*130.2*	*62.0*	*102.5*	*169.5*	*159.1*
Raised through . . .	Shares	99.5	42.4	32.7	91.3	68.1
	Debentures, etc.	30.7	19.5	69.8	78.2	91.0
All Industries	**Total**	**806 9**	**1,554 5**	**1,119.7**	**1,426.7**	**1,683.1**
	Shares	*203.2*	*265.6*	*171.1*	*332.3*	*471.8*
	Debentures, etc.	*603.7*	*1,288.9*	*948.6*	*1,094.4*	*1,211.4*

(*a*) Includes extracting, refining, founding, engineering, metalworking, electrical equipment, etc., vehicles, aircraft and ships, parts and accessories, assembly and repairs. (*b*) Includes share capital raised by banks and insurance companies. (*c*) Includes oil distribution and primary produce dealing. (*d*) Includes primary production, mining and quarrying. (*e*) Prior to July 1973 includes details of companies incorporated in Papua New Guinea.

LOTTERIES AND BETTING

Lotteries

The State Governments of New South Wales, Queensland, South Australia and Western Australia operate lotteries in their own States. Tattersall Sweep Consultations operate under government licence in Victoria and also sell tickets under government licence in Tasmania and New Zealand. Tickets for any of these lotteries may also be sold in the Northern Territory and the Australian Capital Territory. The statistics of sales of tickets and prizes include the sales and allotments of prizes in New Zealand, Tasmania, the Northern Territory and the Australian Capital Territory. In general, revenue derived by the State Governments from these lotteries is used directly or indirectly to provide funds for expenditure on hospitals, charities, etc.

LOTTERIES: VALUE OF TICKET SALES, PRIZES ALLOTTED, TAXES PAID AND OTHER NET CONTRIBUTIONS TO STATE GOVERNMENT REVENUES

($ million)

	Ticket sales	*Prizes allotted*	*Taxes and other net contributions to State Government revenues(a)*
1975–76—			
New South Wales . . .	89.4	55.2	31.5
Victoria	136.9	80.8	42.8
Queensland	33.4	21.2	7.9
South Australia . . .	15.8	9.7	5.2
Western Australia . . .	19.7	12.2	5.3
Total	**295.3**	**179.1**	**92.6**
1974–75	232.1	142.0	61.4
1973–74	159.7	98.4	40.7
1972–73	130.0	79.7	32.1
1971–72	117.9	72.5	29.1
1970–71	110.2	67.9	27.7

(*a*) Includes grants to Tasmanian and New Zealand Governments by Tattersall Sweep Consultations, Victoria.

Betting

TOTALISATOR INVESTMENTS AND INVESTMENTS WITH LICENSED BOOKMAKERS

($ million)

	1971–72		*1972–73*		*1973–74*		*1974–75*		*1975–76*	
	T.A.B.	*Bookmakers*	*T.A.B.*	*Bookmakers*	*T.A.B.*	*Bookmakers*	*T.A.B.*	*Bookmakers*	*T.A.B.*	*Bookmakers*
New South Wales . . .	394.6	345.8	450.3	377.2	529.0	440.2	678.8	549.9	741.0	590.0
Victoria	329.1	217.9	377.8	228.8	425.0	263.2	534.4	339.0	571.6	396.0
Queensland	115.3	158.7	140.2	181.9	165.2	215.1	201.3	269.9	218.4	293.0
South Australia . . .	47.3	73.5	57.8	82.7	70.0	98.4	91.8	124.4	104.7	152.7
Western Australia . .	82.5	41.8	92.4	44.3	116.7	54.0	143.0	60.1	173.7	71.2
Tasmania	1.5	52.9	1.5	58.2	1.7	62.0	11.4	60.7	27.4	42.0
Australian Capital Territory .	10.7	6.8	13.7	8.1	18.1	11.2	24.4	15.9	25.6	18.9
Total	**981.1**	**897.4**	**1,133.6**	**981.2**	**1,325.6**	**1,144.1**	**1,685.2**	**1,419.8**	**1,862.3**	**1,563.9**

RELATED PUBLICATIONS

Current and more detailed information on the subjects dealt with in this chapter is contained in the following bulletins:

Monthly Review of Business Statistics (1304.0) *Public Authority Pensions and Superannuation Schemes* (5511.0) (annual) *Savings Banks (Preliminary)* (5602.0) (monthly) *Major Trading Banks (Preliminary)* (5603.0) (monthly) *Banking* (5605.0) (quarterly) *Housing Finance for Owner Occupation, Savings Banks and Trading Banks* (5608 0) (monthly) *Housing Finance for Owner Occupation* (5609.0) (monthly) *Housing Finance for Owner Occupation, Permanent Building Societies* (5610.0) (monthly) *Building Societies* (5612.0) (annual) *Finance Companies, Australia* (5614 0) (monthly) *Finance Companies: Assets, Liabilities, Income and Expenditure* (5616.0) (annual) *Financial Corporation Statistics* (5617.0) (monthly) *Credit Unions: Assets, Liabilities, Income and Expenditure* (5618.0) (annual) *General Insurance* (5620.0) (annual) *Life Insurance* (5621 0) (monthly) *Life Insurance* (5622.0) (annual) *Survey of Selected Private Pension Funds* (5623 0) (annual) *Unit Trusts, Land Trusts and Mutual Funds* (5624.0) (quarterly) *New Capital Raisings by Companies Listed on Australian Stock Exchanges* (5628.0) (quarterly) *Instalment Credit for Retail Sales* (5631.0) (monthly) *Permanent Building Societies: Assets, Liabilities, Income and Expenditure* (5632.0) (annual)

CHAPTER 22

PUBLIC FINANCE

This chapter deals with the financial activities of the organisations which make up the three levels of government in the Australian political system—Federal, State and Local—and which collectively constitute the public sector. An account is given of the activities of each level of government, with particular emphasis being given to Federal authorities. Tables are then presented which bring together the transactions of all public authorities to highlight the role in the Australian economy of the public sector as a whole. Then follows a section on government borrowing activities at all levels.

COMMONWEALTH GOVERNMENT FINANCE

Financial provisions of the Constitution

The main provisions of the Constitution relating to the initiation and development of the financial system of the Commonwealth of Australia are contained in Sections 81 to 105A of the Commonwealth Constitution (*see* pages 18–21 of this Year Book).

Two other sections which have a most important bearing on questions of Commonwealth finance are Sections 69 and 51. Section 69 provides for the transfer from the States to the Commonwealth of certain specified departments, and Section 51, in outlining the powers of the Commonwealth Parliament, implies the transfer or creation of other departments.

Sections 87 and 96 of the Constitution deal with the financial relations between the Commonwealth and the States. The full text of the Financial Agreement of 1927 was given in Year Book No. 31, page 21; accounts of this Agreement as affected by subsequent Agreements were included in later issues of the Year Book up to No. 37 (*see* pages 685–90); details of the main provisions appeared in further issues of the Year Book up to No. 50 (*see* pages 952–3); and details of current provisions for financial assistance to the States are given on pages 583 to 586 of this Year Book.

The *Audit Act* 1901 lays down the procedure which must be followed in accounting for the receipt and disbursement of public funds. The general administration of Commonwealth Government finances is the responsibility of the Commonwealth Government Treasurer.

Commonwealth Government Budget

The Commonwealth Government Budget records the transactions of those authorities of the Commonwealth Government whose receipts and payments are summarised in the statements of Treasury balances. In 1976–77 the change in cash balances was represented by the following—

	$'000
Cash receipts of the Consolidated Revenue Fund	21,436,302
plus cash receipts of Loan Fund	3,643,833
plus cash receipts of Trust Fund	9,766,218
Total	*34,846,352*
less cash payments from Consolidated Revenue Fund	21,436,302
less cash payments from Loan Fund	3,643,833
less cash payments from Trust Fund (including increase in investments of the Trust Fund)	9,793,654
Total	*34,873,789*
equals decrease in cash balances	27,437

Revenues from taxation and other sources are paid into the Consolidated Revenue Fund, from which the main expenditures are for defence, social services, payments to the States and general administration. The Trust Fund covers special transactions outside the ordinary operations of departmental expenditures, such as pension funds and moneys held for expenditure by the Commonwealth Government at some future time. The Loan Fund receives its funds from the sale of Commonwealth Government securities, and the expenditures from the Fund are made in accordance with the purpose of issue of each loan. The main disbursements from the Loan Fund are to the States by way of distribution of the proceeds of loans raised by the Commonwealth Government on their behalf and by capital assistance grants, the remaining disbursements being mainly for Commonwealth Government purposes.

The receipts and outlay of the Budget for 1977–78 are set out in the table which follows, together with figures for the years 1973–74 to 1976–77. The national accounting presentation of the Budget is shown in order to be consistent with other transactions figures given in this chapter.

It should be noted that some transactions undertaken by authorities covered by the Budget are not reflected in the change in cash balances, usually because they are not cash transactions or because a receipt and a payment are offset against each other so that only a net amount is included in published totals. The national accounting presentation of the Budget includes these additional transactions, further details of which may be found in Budget paper No. 10. *National Accounting Estimates of Receipts and Outlays of Commonwealth Government Authorities.*

RECEIPTS AND OUTLAY OF THE COMMONWEALTH BUDGET

($ million)

(*Source:* 1977–78 Budget paper No. 10 *National Accounting Estimates of Receipts and Outlays of Commonwealth Government Authorities*)

	1973–74	*1974–75*	*1975–76*	*1976–77*	*1977–78 Budget Estimate*
Outlay—					
Net expenditure on goods and services—					
Current	2,709	3,469	4,058	4,646	5,205
Capital(*a*)	266	404	559	516	476
Total	2,975	3,873	4,617	5,162	5,681
Transfer payments—					
Cash benefits to persons	3,076	4,320	6,089	7,373	8,102
Unfunded employee retirement benefits	65	88	106	121	136
Grants to States and local government authorities	3,438	5,184	7,094	7,663	8,741
Interest paid	712	888	968	1,412	1,727
Transfers overseas	289	349	370	388	415
Subsidies	277	228	254	220	246
Grants for private capital purposes	70	121	174	98	125
Purchases of existing assets	30	121	30	23	22
Total	7,957	11,298	15,084	17,298	19,514
Total expenditure	10,932	15,171	19,700	22,460	25,195
Net advances—					
States	749	1,225	1,372	1,278	1,240
Federal authorities	454	1,087	660	262	116
Other sectors	96	356	126	124	105
Total	1,298	2,669	2,159	1,664	1,461
Total outlay	*12,229*	*17,839*	*21,860*	*24,124*	*26,656*
Receipts—					
Taxation—					
Indirect taxes	3,184	3,792	4,877	5,524	6,181
Income tax on companies	2,033	2,447	2,618	2,921	3,101
Income tax on persons	5,490	7,714	9,220	11,054	12,884
Estate and gift duties	76	80	87	88	93
Other direct taxes, fees, fines, etc.	68	23	10	13	16
Unfunded employee retirement contributions	27	35	40	52	57
Less remissions	6	7	8	9	9
Total	10,873	14,085	16,843	19,642	22,323
Other receipts—					
Interest, rent and dividends	1,031	1,175	1,405	1,628	1,814
Gross income of public enterprises	9	−5	−4	85	228
Net sales of existing assets(*b*)	22	18	30	30	74
Total	1,063	1,188	1,432	1,742	2,115
Total receipts	*11,936*	*15,273*	*18,274*	*21,384*	*24,439*
Deficit	**293**	**2,567**	**3,585**	**2,740**	**2,217**

(*a*) Expenditure on new fixed assets *plus* increase in stocks *less* sales of previously rented houses. (*b*) Excludes sales of previously rented houses.

Financing of the Commonwealth Government deficit

The deficit shown in the last line of the preceding table represents the net excess of Budget outlay over receipts. In other words, the estimated deficit shown for 1977–78 represents the Commonwealth Government budget sector's 'financing requirements'. Most such transactions involve the issue, repurchase, redemption or acquisition of Commonwealth Government securities, but some involve or are represented by changes in other assets or liabilities of the Commonwealth Government.

Specifically the deficit is financed as follows:

Net sales of Commonwealth Government securities (new issues *less* redemptions *less* net purchases from Commonwealth Government balances in the Trust Fund);

- *less* net purchases of other investments from Commonwealth Government balances in the Trust Fund
- *plus* minor items of indebtedness (such as borrowing by Australian Capital Territory and Northern Territory housing trust accounts)
- *less* net additions to cash balances, and funds provided for the International Monetary Fund and the Australian Wheat Board.

A table summarising the financial transactions of the Commonwealth Government budget sector for recent years is given on page 175 of Statement No. 6 attached to the *Budget Speech* 1977–78.

FEDERAL AUTHORITIES

In addition to the group of authorites of the Commonwealth Government whose transactions are covered by the Budget (i.e. itemised in the Consolidated Revenue Fund, the Loan Fund, or recorded in a Trust Fund), there are a number of organisations owned or controlled by the Commonwealth Government whose transactions do not, for the most part, pass through the Public Account. This category includes public enterprises such as the Australian Postal Commission, Australian Telecommunications Commission, Overseas Telecommunications Commission, Qantas, Trans-Australia Airlines, the Australian Shipping Commission, the Snowy Mountains Hydro-electric Authority, the Reserve Bank and the Commonwealth Banking Corporation. Public enterprises, it should be noted, are bodies which aim at covering the bulk of their expenses by revenue either from sales of goods and services (trading enterprises), or by charges for services and net interest receipts (financial enterprises). As well as these enterprises, there are other public authorities which record most of their transactions outside the Public Account but have only minor independent sources of revenue and are financed almost entirely from funds voted to them each year from the Consolidated Revenue Fund. In order that the national accounting presentation may indicate as completely as possible the direct effect of the budget on demand, appropriations to this last group of authorities are treated as final expenditure in the Budget. Authorities in this category include the Australian Broadcasting Commission, Australian National University, National Capital Development Commission, and the Australian Atomic Energy Commission.

The transactions of Commonwealth Government bodies not covered by the Budget may be brought together and consolidated with the transactions recorded in the Budget to yield figures of the transactions of all Federal authorities. The remaining tables in this section have been prepared on that basis.

Public financial enterprises have been omitted from the consolidated accounts presented here largely on the ground that combining the income and outlay and capital financing transactions of the Reserve Bank, the publicly owned trading and savings banks, government insurance offices and other public financial institutions with the equivalent transactions of public trading enterprises and general government seems to provide a less meaningful account of public sector activity. For example, omission of the borrowing and lending activities of the government banks and the Reserve Bank allows attention to be centred on the borrowing and lending activities of general government and public trading enterprises, which are quite different in nature and economic effect from the financing activities of the banking system. However, the expenditure on new fixed assets of public financial enterprises is shown in the table on page 579 to provide a measure of the gross fixed capital formation of all publicly owned and/or controlled organisations.

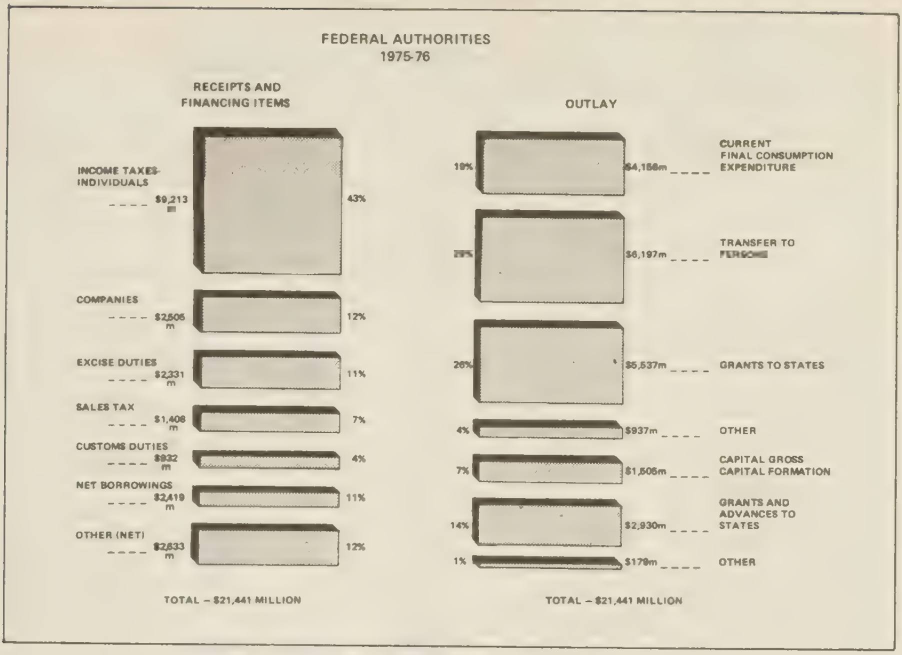

FEDERAL AUTHORITIES
1975-76
RECEIPTS AND FINANCING ITEMS
OUTLAY
INCOME TAXES-INDIVIDUALS $9,213 m 43%
COMPANIES $2,506 m 12%
EXCISE DUTIES $2,331 m 11%
SALES TAX $1,408 m 7%
CUSTOMS DUTIES $932 m 4%
NET BORROWINGS $2,419 m 11%
OTHER (NET) $2,633 m 12%
TOTAL – $21,441 MILLION
19% $4,158m CURRENT FINAL CONSUMPTION EXPENDITURE
29% $6,197m TRANSFER TO PERSONS
26% $5,537m GRANTS TO STATES
4% $937m OTHER
7% $1,506m CAPITAL GROSS CAPITAL FORMATION
14% $2,930m GRANTS AND ADVANCES TO STATES
1% $179m OTHER
TOTAL – $21,441 MILLION

PLATE 42

Summary of receipts and outlay

The receipts and outlay, and outlay classified by purpose, of all federal authorities for the latest five-year period are given in the following tables.

FEDERAL AUTHORITIES(*a*): RECEIPTS AND OUTLAY
($ million)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
RECEIPTS AND FINANCING ITEMS					
Receipts—					
Taxes, fees, fines, etc.	7,938	8,471	10,917	14,211	16,937
Income from public enterprises	306	308	283	246	435
Interest, etc., received	62	77	87	88	116
Total receipts	*8,307*	*8,856*	*11,287*	*14,545*	*17,488*
Financing items—					
Depreciation allowances	207	230	255	279	405
Net sale of securities—					
Treasury bills and notes	−10	165	−38	1,689	−770
Commonwealth government securities	617	666	801	554	3,165
Public corporation securities	1	27	26	22	23
Net receipts of private trust funds	102	116	−90	83	217
Reduction in cash and bank balances	−583	−265	−527	577	270
Reduction in securities holdings	−31	−87	−68	−510	568
Other funds available (including errors and omissions)	20	35	262	122	75
Total financing items	*323*	*886*	*621*	*2,816*	*3,953*
Total funds available	**8,630**	**9,742**	**11,908**	**17,361**	**21,441**
OUTLAY					
Current outlay—					
Final consumption expenditure	2,175	2,369	2,734	3,550	4,156
Interest, etc., paid	−14	15	6	108	117
Transfers to persons	2,041	2,533	3,143	4,410	6,197
Subsidies	377	323	300	284	272
Transfers overseas	205	252	288	349	370
Grants for private capital purposes	40	59	70	122	179
Grants to States and local government authorities	1,769	2,077	2,538	3,785	5,528
Total current outlay	*6,595*	*7,627*	*9,078*	*12,609*	*16,818*
Capital outlay—					
Expenditure on new fixed assets	838	808	1,001	1,350	1,573
Expenditure on existing assets	−5	—19	20	110	7
Increase in stocks	−25	−45	38	315	−75
Grants to States and local government authorities	627	707	900	1,414	1,566
Advances to States and local government authorities	590	668	749	1,225	1,373
Advances to other sectors	9	−5	123	338	179
Total capital outlay	*2,035*	*2,115*	*2,830*	*4,751*	*4,623*
Total outlay	**8,630**	**9,742**	**11,908**	**17,361**	**21,441**

(*a*) Excludes financial enterprises.

FEDERAL AUTHORITIES: OUTLAY, CLASSIFIED BY PURPOSE
($ million)

Purpose	*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*
General public services—					
General administration, n.e.c.	321.6	370.4	475.1	632.0	731.6
External affairs	263.4	305.3	357.5	453.9	470.3
Law, order and public safety	32.7	38.8	53.1	82.4	110.0
General research	80.7	90.6	112.6	140.2	169.4
Total general public services	*698.6*	*805.1*	*998.3*	*1,308.5*	*1,481.2*
Defence	1,127.2	1,206.4	1,306.0	1,610.1	1,852.9
Education—					
General administration, regulation and research	8.4	14.6	13.1	20.6	25.8
Transportation of students	0.8	1.0	1.2	1.5	2.3
Primary and secondary education	99.4	124.7	239.5	543.5	615.7
Vocational training	9.8	18.3	36.2	54.8	81.4
University education	159.3	190.3	330.8	553.0	598.7
Other higher education	55.7	71.9	200.3	408.6	455.5
Other education programs	15.6	22.7	40.5	91.6	127.0
Total education	*348.9*	*443.5*	*861.5*	*1,673.6*	*1,906.5*
Health—					
General administration, regulation and research	28.5	25.3	28.3	56.5	106.6
Hospital and clinical services	296.4	344.5	405.4	580.0	1,658.2
Other health services	361.3	409.9	507.4	639.4	1,178.7
Total health	*686.3*	*779.7*	*941.1*	*1,275.9*	*2,943.4*
Social security and welfare—					
General administration regulation and research	29.3	37.4	58.9	80.5	106.7
Care of and assistance to—					
Aged persons	713.8	926.3	1,186.6	1,683.1	2,247.4
Incapacitated and handicapped persons	148.1	197.0	242.3	337.9	473.8
Unemployed and sick persons	71.7	181.4	118.7	477.0	776.0
Ex-servicemen	281.7	320.0	383.1	505.1	598.9
Widowed and deserted spouses	110.5	150.3	188.6	248.3	335.0
Families and children	225.8	262.9	275.7	312.7	405.8
Other social security and welfare services	17.2	28.8	35.9	54.7	68.0
Total social security, etc.	*1,598.1*	*2,104.0*	*2,489.7*	*3,699.4*	*5,011.7*
Housing and community amenities—					
Housing	54.4	52.7	329.4	652.2	539.1
Community and regional development	25.9	24.2	94.4	231.5	245.5
Protection of the environment	5.6	8.7	41.9	143.7	154.4
Community amenities, n.e.c.	..	0.3	0.4	0.3	0.3
Total housing, etc.	*85.8*	*85.9*	*466.0*	*1,027.6*	*939.2*
Recreation and culture—					
Cultural facilities	8.8	10.3	18.1	24.6	24.0
Support of the creative and performing arts	5.6	6.8	13.1	19.9	20.9
Broadcasting services and film production	82.1	89.6	113.9	154.4	174.7
Recreational facilities and services	6.2	7.4	11.0	19.2	24.2
Other programs	0.2	0.4	1.5	14.8	8.5
Total recreation, etc.	*102.8*	*114.4*	*157.7*	*232.9*	*252.3*
Economic services—					
General administration, regulation and research	139.5	132.5	158.6	237.2	293.7
Agriculture forestry and fishing	312.3	237.4	335.7	565.8	209.6
Mining, manufacturing and construction	106.9	133.7	140.3	206.1	176.2
Electricity and water supply	33.4	40.8	52.2	64.7	76.6
Transport and communication	975.6	961.1	1,193.7	1,531.0	1,699.6
Other economic services	54.7	59.0	37.9	103.8	45.0
Total economic services	*1,622.6*	*1,564.5*	*1,918.2*	*2,708.6*	*2,500.6*
Other purposes—					
General purpose inter-authority transfers	2,370.4	2,628.4	2,740.3	3,601.5	4,377.8
Natural disaster relief	2.4	−5.3	22.6	114.0	58.7
Interest	−13.6	15.1	6.4	108.4	116.6
Total other purposes	*2,359.1*	*2,638.1*	*2,769.3*	*3,823.9*	*4,553.1*
Total outlay, all purposes	**8,629.5**	**9,741.7**	**11,907.8**	**17,360.5**	**21,440.8**
Of which—					
Current outlay	6,594.9	7,626.9	9,077.9	12,609.2	16,817.9
Capital outlay	2,034.7	2,114.9	2,829.9	4,751.3	4,622.9

Main components of outlay

The following tables give details of the main components of the outlay of federal authorities, i.e. final consumption expenditure, expenditure on new fixed assets, cash benefits, subsidies and payments to the States. More detailed information relating to outlay classified by economic type and purpose, and outlay under specific purpose headings such as education, social security and welfare, is given in *Public Authority Finance: Federal Authorities* (5502.0). Additional details of public authorities' transactions engaged in particular fields of activity, e.g. health, may be found in the relevant Chapters of this Year Book.

Final consumption expenditure and expenditure on new fixed assets

Final consumption expenditure consists of current expenditure on goods and services by public authorities other than those classified as enterprises, *less* any charges made for goods and services which they themselves provide. Expenditure on new fixed assets consists of purchases of new durable assets *less* sales of previously rented dwellings. Purchases of defence equipment are treated as current expenditure and all expenditure on road systems and ancillary facilities is treated as capital. The following tables show dissections by purpose of final consumption expenditure and expenditure on new fixed assets for the five years ended 1975–76.

FEDERAL AUTHORITIES, FINAL CONSUMPTION EXPENDITURE CLASSIFIED BY PURPOSE

($ million)

Purpose	*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*
General public services—					
General administration	285	333	430	555	668
External affairs	45	50	58	84	92
Law, order and public safety . . .	30	36	48	73	98
General research	66	75	90	112	131
Total general public services	*426*	*493*	*626*	*823*	*988*
Defence	1,127	1,178	1,222	1,444	1,680
Education	64	79	109	167	199
Health	138	157	206	303	416
Social security and welfare	61	72	96	148	198
Housing and community amenities . . .	11	17	29	51	57
Recreation and culture	87	99	135	181	203
Economic services—					
General administration, regulation and research	107	102	122	166	167
Agriculture, forestry, fishing . . .	72	82	83	101	114
Mining, manufacturing and construction .	11	12	14	18	17
Transport and communication . . .	56	62	74	90	93
Other	16	16	15	19	19
Total economic services	*261*	*274*	*309*	*393*	*410*
Other purposes	..	..	1	43	5
Grand total	**2,175**	**2,369**	**2,734**	**3,550**	**4,156**

FEDERAL AUTHORITIES: EXPENDITURE ON NEW FIXED ASSETS, CLASSIFIED BY PURPOSE

I. GENERAL GOVERNMENT

($ million)

Purpose	*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*
General public services—					
General administration	22.6	35.8	43.4	56.9	62.2
External affairs	3.5	15.4	12.3	15.9	20.3
Law, order and public safety	2.5	2.9	3.2	7.2	9.4
General research	10.0	9.4	15.1	20.6	32.1
Total general public services	*38.7*	*63.5*	*73.9*	*100.4*	*124*
Education	25.0	30.1	32.1	45.1	72.9
Health	21.5	19.4	22.0	40.3	57.7
Social Security and welfare	2.6	2.5	10.7	9.1	13.0
Housing and community amenities	21.8	26.4	38.9	65.4	128.5
Recreation and culture	15.0	13.6	21.3	31.3	31.9
Economic services—					
General administration, regulation and research	5.8	4.6	3.3	3.9	6.4
Agriculture, forestry, fishing	4.1	16.4	9.3	12.6	10.6
Mining, manufacturing and construction	0.6	0.5	0.8	1.9	1.8
Transport and communication	56.9	45.2	43.6	56.7	57.4
Other economic services	0.2	0.1	0.1	..	0.1
Total economic services	*67.6*	*66.8*	*57.1*	*75.2*	*76.3*
Other purposes	..	..	..	6.5	5.1
Total general government	*192.3*	*222.3*	*256.1*	*373.3*	*509.5*

II. PUBLIC ENTERPRISES

($ million)

Purpose	*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Public trading enterprises—					
General public services	0.5	1.6	0.7	1.5	1.5
Housing and community amenities—Housing	7.2	3.9	0.5	8.6	16.7
Sewerage and drainage	3.1	5.4	8.0	15.6	24.8
Economic services—					
Technical services, n.e.c.	0.4	0.4	0.4	0.6	0.2
Manufacturing activities	1.5	1.9	1.6	4.9	11.5
Electricity, water supply	31.5	26.9	28.8	26.1	31.6
Transport and communication—					
Air transport	138.7	41.8	69.5	70.5	67.5
Rail transport	17.1	10.6	7.5	13.4	45.3
Sea transport	16.0	20.9	10.5	55.6	46.5
Urban transit systems	2.6	2.0	2.7	3.5	5.9
Pipelines	..	10.4	56.0	56.5	51.3
Communications services	426.4	460.1	558.8	717.7	756.5
Total	*600.9*	*545.7*	*704.9*	*917.3*	*973.1*
Other economic services	1.0	0.3	0.1	1.8	4.1
Total public trading enterprises	*646.0*	*586.0*	*745.0*	*976.4*	*1,063.4*
Public financial enterprises	23.7	28.3	21.8	31.0	38.5
Total public enterprises	*669.6*	*614.3*	*766.8*	*1,007.5*	*1,101.9*

Cash benefits to persons

Total payments of cash benefits to persons during the latest five years are shown in the next table.

Further information relating to items in this table is given in the appropriate chapters of this Year Book.

FEDERAL AUTHORITIES: CASH BENEFITS TO PERSONS
($'000)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
General public services—					
General research—					
Queen Elizabeth fellowships	282	330	451	473	584
Defence—					
Special pensions to ex-servicemen	5	2	2	—	..
Education	54,694	74,036	93,764	124,273	162,455
Health	508,133	581,283	659,003	817,015	1,369,405
Social security and welfare	1,471,092	1,869,973	2,316,407	3,354,893	4,506,587
Recreation—					
Overseas study fellowships	..	..	..	193	190
Economic services—					
General administration, regulation and research—					
Hostel tariffs of unemployed migrants	602	252	290	289	148
Maintenance of migrant families	4,298	4,385	4,425	6,029	6,498
Stevedoring industry—attendance money, etc.	1,207	1,362	1,606	2,125	2,691
Widows' training scheme	656	516	875	863	47
Tertiary education assistance to ex-servicemen	725	814	820	421	..
National employment training scheme	..	..	..	10,590	31,056
National apprenticeship training scheme	..	..	..	..	8,661
Other	9	10	12	3	..
Total	7,497	7,338	8,027	20,321	49,103
Agriculture, forestry, fishing—					
War service land settlement—rent remissions, etc.	30	50	13	12	6
Allowances to agricultural trainees	..	..	66	49	
Total	30	50	79	61	6
Mining, manufacturing and construction—					
Joint coal board—Welfare fund	43	40	36	5	4
Total economic services	*7,570*	*7,428*	*8,142*	*20,387*	*49,113*
Other purposes	..	..	..	5,217	2,882
Total	2,041,776	2,533,052	3,077,769	4,322,258	6,091,219

Subsidies

The following table shows details of Commonwealth Government outlay on subsidies and bounties. Other assistance to primary producers is included in, for example, tables relating to cash benefits and payments to the States, and additional information is given in Chapter 13, Rural Industry.

FEDERAL AUTHORITIES: SUBSIDIES
($'000)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
epartmental cafeteria compensation	..	..	189	179	125
erum laboratories	479	607	681	1,542	1,242
.T. Housing Commission assistance	..	113	76	64	50
anberra Theatre Trust subsidy	28	38	67	120	143
conomic services—					
Assistance to employers—					
Stevedoring industry assistance	15,709	12,792	14,480	22,330	28,572
Apprenticeship training	788	1,209	6,130	16,551	26,215
Other	..	..	131	..	..
Total	*16,497*	*14,001*	*20,741*	*38,881*	*54,786*
Assistance to agricultural and pastoral enterprises—					
Dairy products subsidy	39,882	28,500	18,000	9,000	1,275
Wheat prices stabilisation payments	58,357	41,371	12,360	..	..
Phosphate fertilisers bounty	45,795	56,568	66,962	29,508	20,133
Nitrogenous fertilisers bounty	9,757	13,138	13,573	13,983	13,044
Poultry industry assistance	13,222	12,910	11,522	12,735	11,400
Devaluation compensation	7,204	175	..	..	..
Wool marketing assistance	4,100	2,481	404	..	..
Deficiency payments for wool	52,671	−1,640	−11	..	..
Apple and pear stabilisation payments	2,584	3,119	2,758	3,119	2,705
Other	3,627	3,695	3,631	648	1,415
Total	*237,200*	*160,317*	*129,199*	*68,993*	*49,973*
Assistance to mining enterprises—					
Oil search subsidy	7,536	8,084	10,000	5,858	186
Gold mining industry assistance	1,712	248	17	..	..
Other	1,205	273	1,470	84	..
Total	*10,453*	*8,605*	*11,487*	*5,942*	*186*
Assistance to manufacturing enterprises—					
Agricultural tractor bounty	3,160	2,800	3,707	4,442	3,628
Book bounty	3,181	2,984	3,409	5,936	6,749
Industrial research and development grants	13,000	14,000	15,000	17,500	19,300
Ship construction subsidy	13,396	30,633	20,925	31,153	41,480
Export incentive grants	5,674	58,340	68,142	93,151	62,825
Structural adjustment assistance	..	..	109	5,304	1,120
Refrigeration compressors bounty	..	..	..	3,877	1,367
Other	1,083	2,405	1,180	2,600	4,246
Total	*84,494*	*111,163*	*112,472*	*163,963*	*140,715*
Assistance to air transport services	1,900	2,000	1,870	926	768
Assistance to sea transport services	217	24	1,024	1,040	5,536
Other assistance to enterprises—					
Petrol prices equalisation	23,064	23,305	19,336	1,708	..
Northern Territory petrol prices equalisation	2,165	2,393	2,483	626	..
Export market development grants	..	..	..	..	17,076
Other	..	..	..	..	1,070
Total	*25,229*	*25,698*	*21,819*	*2,334*	*18,146*
tural disaster relief—					
N.T. drought and flood relief freight concessions and subsidies	210	27	69	48	.
Total	**376,708**	**322,594**	**299,695**	**284,032**	**271,670**

Grants and advances to the States

Commonwealth Government financial assistance to the States takes two main forms: (i) grants for general and specific purposes, and (ii) assistance for developmental and other specific purposes in the form of repayable advances. Some information about these forms of financial assistance is given below, but for more complete information reference should be made to the Commonwealth Government Budget paper *Payments to or for the States and Local Government Authorities*. Further information also appears in chapters of this Year Book dealing with the specific function which the payments are designed to serve.

Grants to the States

The following tables show details of grants to the States for general and specific purposes. More detailed figures appear in *Public Authority Finance: Federal Authorities* (5502.0).

FEDERAL AUTHORITIES: GRANTS TO THE STATES, 1975–76
($'000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
FOR CURRENT PURPOSES							
General public services	2,708	1,859	865	1,058	1,229	190	7,910
Defence	298	119	269	8	150	53	897
Education	393,874	347,685	148,596	109,812	102,590	32,993	1,135,548
Health	344,843	244,963	111,826	99,375	107,140	34,526	942,674
Social security and welfare	15,495	18,133	11,552	8,241	5,916	3,059	62,396
Housing and community amenities	3,465	2,429	1,181	1,304	1,071	412	9,863
Recreation and culture	126	171	118	98	105	170	789
Economic services	8,748	5,814	5,199	1,760	2,840	3,647	28,008
Other purposes—							
Financial assistance grants	946,660	706,389	536,792	363,091	363,031	156,816	3,072,780
Special grants	..	..	36,300	2,500	..	..	38,800
Special revenue assistance	..	..	..	..	..	..	..
Interest on States' debt	5,835	4,254	2,192	1,408	947	534	15,170
Sinking fund on States' debt	9,900	7,500	3,900	4,000	2,800	2,100	30,200
Debt charges assistance	..	..	..	..	..	..	..
Natural disaster relief	637	35	52	..	83	..	807
Local government assistance	29,257	20,242	13,808	6,785	7,524	2,292	79,908
Other	..	..	..	1,488	..	480	1,968
Total other purposes	*992,289*	*738,420*	*593,044*	*379,272*	*374,385*	*162,222*	*3,239,633*
Total grants for current purposes	**1,761,847**	**1,359,594**	**872,650**	**600,928**	**595,426**	**237,272**	**5,427,719**
FOR CAPITAL PURPOSES							
Education	104,350	102,865	44,897	24,721	27,335	15,076	319,244
Health	45,157	32,603	25,361	15,875	18,133	3,110	140,238
Social security and welfare	7,822	4,119	1,635	1,690	1,143	777	17,187
Housing and community amenities	31,391	19,127	12,765	5,882	8,795	1,336	79,297
Recreation and culture	3,153	2,145	1,715	1,710	1,003	1,311	11,036
Economic services—							
General administration, regulation and research	38	..	22	..	..	..	60
Soil and water resources management	3,465	1,358	6,403	819	2,133	165	14,343
Assistance to agricultural and pastoral industries	2,255	4,165	2,765	1,058	1,775	517	12,535
Electricity, gas, water supply	..	..	1,402	2,679	..	..	4,081
Rail transport	..	..	..	3,472	..	..	3,472
Sea transport	1,164	..	..	..	..	121	1,285
Road systems and regulation	136,232	91,989	90,049	41,483	62,225	36,461	458,439
Urban transit systems	5,694	9,529	8,986	6,757	750	2,380	34,096
Other	358	511	142	500	200	120	1,829
Total economic services	*149,206*	*107,552*	*109,769*	*56,768*	*67,083*	*39,764*	*530,142*
Other purposes—							
Capital assistance	137,057	108,871	57,459	56,475	40,099	30,372	430,333
Natural disaster relief	12,596	5,937	6,319	108	4,197	−7	29,150
Total grants for capital purposes	**490,732**	**383,219**	**259,920**	**163,229**	**167,788**	**91,739**	**1,556,627**
TOTAL GRANTS							
Total grants to the States	**2,252,579**	**1,742,813**	**1,132,570**	**764,157**	**763,214**	**329,011**	**6,984,346**

FEDERAL AUTHORITIES: GRANTS TO THE STATES
($'000)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
FOR CURRENT PURPOSES					
General public services	4,490	5,917	8,051	8,955	7,910
Defence	..	..	..	325	897
Education	118,923	153,858	433,470	910,815	1,135,548
Health	11,908	13,836	26,734	47,281	942,674
Social security and welfare	34,112	118,686	22,258	60,786	62,396
Housing and community amenities	4,151	6,892	7,437	9,494	9,863
Recreation and culture	..	..	218	70	789
Economic services	9,876	13,076	17,121	22,713	28,008
Other purposes—					
Financial assistance grants	1,440,878	1,647,293	1,859,905	2,373,811	3,072,780
Special grants	23,800	38,600	38,550	64,684	38,800
Special revenue assistance	55,000	..	25,000	75,000	..
Interest on State's debt	15,170	15,170	15,053	15,287	15,170
Sinking fund on State's debt	26,323	27,979	29,509	30,805	30,200
Debt charges assistance	23,008	34,512	46,016	57,520	..
Natural disaster payments	1,143	72	4,031	1,090	807
Local government assistance	..	..	..	56,345	79,908
Other	..	..	..	..	1,968
Total other purposes	*1,585,323*	*1,763,626*	*2,018,064*	*2,674,542*	*3,239,633*
Total grants for current purposes	**1,768,783**	**2,075,891**	**2,533,353**	**3,734,981**	**5,427,719**
FOR CAPITAL PURPOSES					
Education	85,969	105,569	189,064	415,474	319,244
Health	6,076	7,150	25,099	60,734	140,238
Social security and welfare	8,600	7,683	7,261	7,795	17,187
Housing and community amenities	5,276	11,651	25,011	70,182	79,297
Recreation and culture	..	..	1,562	12,623	11,036
Economic services—					
General administration, regulation and research	372	24	24	180	60
Soil and water resources management	22,843	17,646	13,571	15,193	14,343
Assistance to agricultural and pastoral industries	13,796	14,523	11,204	10,316	12,535
Electricity, gas, water supply	..	1,500	..	..	4,081
Rail transport	2,845	1,416	468	734	3,472
Sea transport	..	3,057	1,000	2,018	1,285
Road systems and regulation	255,464	287,439	325,657	373,860	458,439
Urban transit systems	..	..	..	45,259	34,096
Other	..	50	98	1,081	1,829
Total economic services	*295,320*	*325,655*	*352,020*	*448,641*	*530,142*
Other purposes—					
Natural disaster relief	5,430	−77	20,275	48,446	29,150
Capital assistance	219,100	248,539	278,307	345,878	430,333
Total grants for capital purposes	**625,771**	**706,169**	**898,600**	**1,409,774**	**1,556,627**
TOTAL GRANTS					
Total grants to the States	**2,394,554**	**2,782,060**	**3,431,953**	**5,144,755**	**6,984,346**

General purposes grants

The Financial Assistance Grants. Details of the financial assistance grants arrangements existing in 1972–73 and previous years are given in earlier issues of the Year Book (*see* No. 60, page 578).

Arrangements for the years 1973–74 to 1975–76 are embodied in the *States Grants Act* 1973. Under these arrangements the financial assistance grants increase each year in proportion to the increase in average wages in Australia as a whole in the year ending 31 March in the year of payment and to the increase in each State's population in the year ending 31 December in the year of payment, and by a betterment factor of 1.8 per cent. Adjustments were made to these arrangements to reduce the grants when the Commonwealth assumed full responsibility for financing tertiary education from 1 January 1974 and on account of transfers of railways from South Australia and Tasmania to the Commonwealth. Financial assistance grants additional to the grants determined by the formula were paid to Western Australia in 1973–74 and 1974–75 and to Tasmania in 1974–75.

These arrangements were replaced by the personal income tax sharing scheme between the Commonwealth and the State and local governments which came into operation in 1976–77. A comprehensive description of this scheme is given in the Commonwealth Budget paper *Payments to or for the States and Local Government Authorities* 1977–78.

The following table shows particulars of the calculations of the financial assistance grants for 1975–76.

CALCULATION OF FINANCIAL ASSISTANCE GRANTS FOR 1975–76
($'000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
1974–75 grants	737,522	548,405	414,446	261,737	(*a*)273,330	(*b*)131,871	2,367,311
Plus additions to base grants	..	..	..	(*c*)21,000	(*d*)5,000	..	26,000
Less subtraction from base grants	..	..	..	..	..	(*c*)10,700	10,700
Total base grants	*737,522*	*548,405*	*414,446*	*282,737*	*278,330*	*121,171*	*2,382,611*
Plus additions under formula(*e*)	141,361	107,409	83,914	54,359	58,709	24,418	470,169
Sub-totals	*878,883*	*655,814*	*498,360*	*337,095*	*337,039*	*145,589*	*2,852,780*
Additional grants(*d*)	67,777	50,575	38,432	25,996	25,992	11,227	220,000
Total financial assistance grants	**946,660**	**706,389**	**536,792**	**363,091**	**363,031**	**156,816**	**3,072,780**

(*a*) Excluding 'temporary' addition of $6.5 million in 1974–75. (*b*) Including additional $15 million paid in 1974–75 and included in 'base' for purposes of calculating grants for 1975-76 and later years. (*c*) Net amounts agreed to in relation to railway transfers in South Australia and Tasmania and to the withdrawal of the former State from the Grants Commission system. (*d*) Agreed to at June 1975 Premiers' Conference as part of revised grants arrangements. (*e*) Calculated from the Statistician's estimates of increases in State populations in the year ended 31 December 1975 (New South Wales, 0.16 per cent; Victoria, 0.51 per cent; Queensland, 1.07 per cent; South Australia, 0.21 per cent; Western Australia, 1.78 per cent; and Tasmania, 0.99 per cent, giving a weighted average of 0.64 per cent for all States combined), the Statistician's estimate of the increase in average wages for Australia as a whole in the year ended 31 March 1976 of 16.87 per cent and the betterment factor of 1.8 per cent.

Special Grants. These grants are paid to the financially weaker States as supplements to the financial assistance grants. They are paid on the recommendation of the Grants Commission. The recommendation by the Commission for payment of a special grant consists of two parts: one part is based on an estimate of the claimant State's financial need in the current financial year, and is treated as an advance payment subject to adjustment two years later when the Commission has compared in detail the audited budget results and standards of effort and of services provided in that year for both the claimant State and the States which the Commission takes as 'standard' (New South Wales and Victoria at present); and the other part represents the final adjustment to the advance payment made two years earlier and is known as the completion payment. The following table shows special grants paid in recent years.

GRANTS COMMISSION: SPECIAL GRANTS
($'000)

	1972–73	*1973–74*	*1974–75*	*1975–76*	*1976–77*
Queensland—					
Advance payment	10,000	10,000	15,000	25,000	18,000
Completion payment(*a*)	9,750	11,300	9,000	10,800	(*b*)
Total	*19,750*	*21,300*	*24,000*	35,800	(*b*)
South Australia—					
Advance payment	13,500	15,000	15,000	..	..
Completion payment(*a*)	8,500	2,500	(*c*)10,000	..	..
Total	*22,000*	*17,500*	*25,000*	..	..
Tasmania—					
Advance payment	10,000	10,000	..	..	..
Completion payment(*a*)	(*d*)	(*d*)	..	..	..
Total	*10,000*	*10,000*	..	..	..
Grand total	**51,750**	**48,800**	**49,000**	**35,800**	(*b*)

(*a*) Adjustment to estimated grant paid two years previously. (*b*) Not yet determined. (*c*) Represents agreed estimate of completion grant which could have been expected to be recommended by the grants commission if the State had remained claimant. (*d*) No completion grants were or are to be paid to Tasmania in respect of these years.

Capital assistance grants. Since 1970–71 the Commonwealth Government has provided a portion of the State's Loan Council programs in the form of interest-free capital grants. The grants replace State borrowings and thereby relieve them of debt charges they would otherwise have had to pay. These grants, which were authorised by the *States Grants (Capital Assistance) Acts*, totalled $278.3 million in 1973–74, $345.9 million in 1974–75, $430.3 million in 1975–76 and $452.0 million in 1976–77; in 1977–78, $477.9 has been budgeted.

Specific purpose grants

The Commonwealth Government has provided financial assistance for certain specific types of expenditure by the States for many years. Unlike the general purpose grants, these current and capital grants are 'tied', that is, they are subject to conditions as to the purposes for which they may be spent. Purposes for which such grants have been made include educational programs, hospital development programs, welfare services for the aged, road construction, natural disaster relief and, since 1974–75, assistance to local government authorities. Specific purpose grants amounted to $3,442.4 million in 1975–76 and $3,472.9 million in 1976–77.

For details of the various specific purpose programs reference should be made to the Commonwealth Budget paper *Payments to or for the States and Local Government Authorities*, 1977–78.

Advances to the States

The Commonwealth is also providing financial assistance for State projects by way of repayable advances. Borrowings of the Loan Council which are advanced to the States for their work programs and advances for State housing projects represent the largest proportion of the total funds advanced. Full descriptions of the various programs for which funds have been advanced in recent years are given in *Payments to or for the States and Local Government Authorities*.

The following tables show figures of advances to the States and repayments of advances. More detailed figures appear in *Public Authority Finance: Federal Authorities* (5502.0).

FEDERAL AUTHORITIES: NET ADVANCES TO THE STATES 1975–76
($'000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
Defence	17,758	5,871	7,336	1,712	655	158	33,490
Housing and community amenities	200,286	150,857	38,664	78,382	46,294	22,662	537,143
Economic services—							
Soil and water resources management	1,869	2,631	1,419	2,800	−9	..	8,710
Forest resources management	2,456	900	2,250	566	864	901	7,937
Assistance to agricultural and pastoral industries	8,412	14,345	10,355	4,520	5,373	1,923	44,927
Electricity, gas, water supply	..	..	38,934	6,252	..	−2,989	42,197
Rail transport	−129	−96	−1,767	1,488	−2,063	..	−2,567
Sea transport	−81	..	−86	..	−151	−3	−322
Other	..	..	−570	−1,875	..	..	−2,445
Total economic services	*12,527*	*17,780*	*50,535*	*13,751*	*4,014*	*−168*	*98,437*
Other purposes—							
State works programs	222,597	181,179	95,091	92,813	65,366	51,622	708,668
Natural disaster relief	−2,241	−447	−1,986	−69	67	−320	−4,996
Total other purposes	*220,356*	*180,732*	*93,105*	*92,744*	*65,433*	*51,302*	*703,672*
Total net advances	**450,926**	**355,240**	**189,640**	**186,588**	**116,394**	**73,954**	**1,372,740**

Minus sign (−) denotes excess of repayments.

FEDERAL AUTHORITES: ADVANCES TO THE STATES
($'000)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
GROSS					
Defence	7,034	6,163	7,766	26,805	34,170
Housing and community amenities	(*a*)12	(*a*)6,610	263,633	565,507	559,203
Economic services—					
Assistance to agricultural and pastoral industries	33,797	41,501	27,363	28,477	50,328
Other	11,009	29,636	37,316	57,119	65,509
Other purposes—					
State works programs	(*a*)672,900	(*a*)733,461	588,693	741,541	860,667
Other	17,839	15,000	3,872	3,663	1,098
Total gross advances	**742,591**	**832,371**	**928,643**	**1,423,112**	**1,570,975**
REPAYMENTS					
Defence	512	555	592	631	681
Housing and community amenities	16,144	16,735	17,380	19,172	22,060
Economic services—					
Assistance to agricultural and pastoral industries	1,947	2,052	3,970	3,391	5,401
Other	5,833	7,904	11,089	9,373	11,999
Other purposes—					
State works programs	123,280	132,195	140,783	149,400	151,999
Other	4,760	5,317	6,274	16,243	6,094
Total repayments	**152,476**	**164,758**	**180,091**	**198,211**	**198,237**
NET					
Defence	6,522	5,608	7,174	26,174	33,490
Housing and community amenities	(*a*)−16,132	(*a*)−10,125	246,251	546,335	537,143
Economic services—					
Assistance to agricultural and pastoral industries	31,850	39,449	23,393	25,087	44,927
Other	5,176	21,732	26,227	47,745	53,510
Other purposes—					
State works programs	549,620	601,266	447,910	592,141	708,668
Other	13,079	9,683	−2,402	−12,580	−4,996
Total net advances	**590,115**	**667,613**	**748,551**	**1,224,901**	**1,372,740**

(*a*) In 1971–72 and 1972–73 funds for housing were provided under the State loan works program.
Minus sign (−) denotes excess of repayments.

Main components of receipts

The main components of the receipts of Commonwealth Government authorities are taxation, income of public enterprises and other factor income transfers, and borrowing and financing transactions. Taxation constitutes by far the major source of receipts. Borrowing is of a lesser significance so far as Federal authorities themselves are concerned, although, as may be seen in later tables, it has become an increasingly significant source of funds for the States. The realisation of the increasing commitment of State revenues to the servicing of a rapidly growing debt burden led to the arrangement agreed to at the 1970 Premiers' Conference whereby the Commonwealth Government makes interest-free capital grants to the States in lieu of moneys previously obtained by the States from borrowings (*see* page 585.) In addition, in 1975 the Commonwealth Government took over the responsibility of servicing $1,000 million of State debts, further relieving the burden on the States' financial resources.

In what follows, an account is given of the system of Commonwealth Government taxation, and some details are given of the current operations of Federal public enterprises. Borrowing and other financing activities of Federal authorities are dealt with for convenience in a later section relating to the debt of all public authorities.

Commonwealth Government taxation—summary

The following tables show Commonwealth Government taxation receipts classified by type of tax for the past five years, and the proportion of each type to total collections.

FEDERAL AUTHORITIES: TAXATION BY TYPE OF TAX
($'000)

Type of tax	*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Taxes—					
Income taxes—					
Individuals	3,764,686	4,084,492	5,485,143	7,708,552	9,212,652
Companies(*a*)	1,462,012	1,544,612	1,933,870	2,343,943	2,505,173
Dividend (witholding)	42,002	51,197	56,648	59,818	62,674
Interest (witholding)	15,650	21,406	22,588	28,298	32,344
Total income taxes	*5,284,350*	*5,701,707*	*7,498,249*	*10,140,611*	*11,812,843*
Estate duty	67,258	66,408	66,018	63,787	76,391
Gift duty	8,530	6,941	9,725	16,204	10,454
Rates on land	5,403	6,271	7,365	8,786	12,392
Customs duty on coal exports	..	..	..	..	111,640
Customs duties on imports	468,732	513,381	604,443	840,515	932,066
Excise duties	1,213,056	1,268,289	1,554,581	1,728,620	2,331,325
Sales tax	680,772	764,868	968,724	1,154,266	1,408,286
Primary production taxes	28,445	34,845	64,442	143,428	115,594
Broadcasting listeners' and television viewers' licences(*b*)	61,785	67,050	68,458	18,816	..
Broadcast station licences	474	491	591	713	827
Television station licences	1,967	2,024	2,410	2,819	3,393
Stevedoring industry charge	15,987	16,979	19,389	21,921	37,150
Payroll tax	91,037	6,291	6,950	14,351	17,347
Other taxes	5,285	7,005	9,312	10,153	13,087
Total taxes	*7,933,081*	*8,462,550*	*10,880,658*	*14,164,990*	*16,882,795*
Fees from regulatory services	3,206	4,409	5,212	8,219	11,962
Fines	1,914	2,510	2,712	2,620	2,515
Unfunded employee retirement contribution	..	945	27,248	34,513	39,889
Other current transfers n.e.c.	386	180	761	785	209
Total taxation	**7,938,587**	**8,470,594**	**10,916,591**	**14,211,127**	**16,937,370**
of which—					
Taxation levied in the Territories only	15,696	19,826	25,392	35,079	46,306

(*a*) Excludes income tax paid by public enterprises: 1971–72, $15.5m; 1972–73, $16.7m; 1973–74, $20.1m; 1974–75, $14.9m; 1975–76, $17.7m. (*b*) Abolished in September 1974.

Taxes on income

A description of the development of income taxes in Australia appeared in Year Book No. 35, page 926. Since July 1942 the Commonwealth Government, under the uniform tax arrangement, has been the only authority imposing taxes on income.

The laws dealing with the assessment and imposition of Income tax at 1 January 1978 were—*Income Tax Assessment Act* 1936 (later referred to as 'the Assessment Act'); Acts declaring rates of tax—*Income Tax* (*Rates*) *Act* 1976, *Income Tax* (*Individuals*) *Act* 1976, *Income Tax* (*Companies and Superannuation Funds*) *Act* 1976, *Income Tax* (*Dividends and Interest Withholding Tax*) *Act* 1974, *Income Tax* (*Drought Bonds*) *Act* 1969, *Income Tax* (*Withholding Tax Recoupment*) *Act* 1971, *Income Tax* (*Bearer Debentures*) *Act* 1971; and Income Tax Regulations.

The *Income Tax Assessment Act*, under provisions inserted by the *Health Insurance Levy Assessment Act* 1976 and the *Health Insurance Levy Assessment Act* (*No.* 2) 1976, provides for the payment of the health insurance levy at rates declared by the *Health Insurance Levy Act* (*No.* 2) 1976 and *Health Insurance Levy Act* 1977.

Both individuals and companies are liable for income tax. Private companies are subject to tax on undistributed income in addition to the primary income tax levied on all companies.

The operation of the *Assessment Act* is affected by other Acts, the more important of which are:

(a) *Taxation Administration Act* 1953, which provides for the administration of certain Acts relating to taxation and the screening for taxation purposes of applications for exchange control approval.

(b) *Income Tax (International Agreements) Act* 1953, which gives the force of law to agreements with other countries for the avoidance of double taxation. Australia has concluded comprehensive agreements for the avoidance of double taxation with the United Kingdom, the United States of America, Canada, New Zealand, Singapore, Japan, the Federal Republic of Germany, the Netherlands, France and Belgium, and limited agreements dealing with airline profits have been concluded with France, Italy and Greece. The agreements with Belgium and Greece have not yet entered into force.

(c) *The States (Personal Income Tax Sharing) Act* 1976, which provides for the States to receive a specified proportion of net personal income tax collections.

(d) *Internation Organizations (Privileges and Immunities) Act* 1963, and Regulations made under that Act, which provide for the exemption from income tax of certain income of international organizations and their officials.

(e) *Diplomatic Privileges and Immunities Act* 1967, which provides for the exemption from income tax of certain income of diplomatic representatives, their staff and families.

(f) *The Loan (Income Equalization Deposits) Act* 1976, which provides for the making of interest-bearing income equalization deposits by primary producers with the Commissioner of Taxation.

(g) *Consular Privileges and Immunities Act* 1972, which provides for the exemption from income tax of certain income of consular representatives, their staff and families.

(h) *Loan (Drought Bonds) Act* 1969, which authorizes the issue of drought bonds and empowers the Commissioner of Taxation to declare when drought bonds have become redeemable.

Any resident individual carrying on a business of primary production whose total income is in excess of $1,040, and any other resident individual whose total income is in excess of $2,604 (in 1976–77 or $3,113 in 1977–78), is required to lodge a return of income. A non-resident individual is required to lodge a return of income when his total income (other than dividends or interest upon which withholding tax has been paid) from all sources in Australia is in excess of $1,040 (in 1976–77 or $3,113 in 1977–78).

Non-profit companies with total incomes in excess of $416 and all other companies, partnerships and trusts deriving income are required to lodge returns of income each year.

Where applicable, income tax payable is assessed and assessment notices showing the amounts payable are issued during the year following the year of income. For individuals the approximate amount payable, however, has already been collected during the income year (from employees by deductions from salary or wages and from non-employees by a provisional tax). The amount shown on the assessment notice is therefore adjusted against the amount already paid, and any difference is either collected or refunded.

Taxes on income—individuals

Pay-as-you-earn-system

Salary and wage earners are subject to tax instalment deductions by employers according to prescribed scales which show the amount to be deducted according to income and whether or not a health insurance levy exemption has been lodged. Under the group employer scheme (covering employers of more than ten persons), the amount deducted is required to be regularly remitted to the Australian Taxation Office.

Not later than 14 July each year, employers are required to supply each employee with a group certificate showing the amount earned and deductions made during the year ended 30 June.

Under the tax stamp scheme for employers other than group employers, a tax deduction sheet in two parts is used. Every four weeks the employer purchases tax stamps for the amount of deductions made each pay day and attaches the tax stamps to the tax stamps sheet in the space provided and the tax checks (attached to the stamps) in the space provided on the tax check sheet. At the end of the year the employer gives the employee the tax stamp sheet and sends the tax check sheet to the Taxation Office. The tax stamp sheet is then used in the same way as a group certificate.

Individuals with taxable income other than salary or wages of $400 *or more* may be required to pay provisional tax in respect of that income. The provisional amount is intended as an approximation to the tax which will be assessed after the return of income for the current year has been lodged. The amount of provisional tax for any year is, in the first place, determined by the tax assessed on income of the previous year. The assessment notice shows the tax assessed on income from the previous year less any provisional tax already paid for that year and provisional tax payable for the current year.

Assessable income—individuals

Assessable income (from which deductions are made to arrive at taxable income) basically includes all receipts within the ordinary meaning of the word 'income', but excludes items of income that are specified as exempt. Assessable income specifically includes certain receipts such as casual profits arising from the sale of property held less than one year and profits arising from the sale of property acquired for the purpose of profit-making by sale regardless of the period the property is held before sale. The value to employees of allowances and benefits given by employers for services rendered is also specifically included in the assessable income of the employees. Receipts such as gifts (other than gratuities received by an employee in the course of employment), legacies, lottery wins and other receipts of capital generally do not form part of the assessable income.

Exemption from tax is provided by the *Assessment Act* in respect of a number of specified classes of income—for example, war pensions; invalid pensions; family allowances; income received from a scholarship, bursary or other educational allowance; the income of charitable institutions and public hospitals and certain foreign income where it has been taxed overseas.

Deductions

The taxable income to which the rates of tax are applied is arrived at by deducting from the assessable income any allowable deductions. Allowable deductions include:

General Deductions. Deductions from assessable income are authorised for all losses and outgoings incurred in gaining or producing assessable income or necessarily incurred in carrying on a business for that purpose, except to the extent that they are of a capital, private or domestic nature, or are incurred in gaining or producing exempt income.

In addition, certain other deductions are specifically authorised by the *Assessment Act*. Deductions allowable include trading losses incurred in previous years, bad debts, depreciation, rates and land taxes paid and gifts to various institutions. Expenditure of a capital nature incurred in relation to mining operations is generally deductible over the lesser of 25 years or the life of the mine or oil field or, in the case of plant, over the life of the plant. Exploration or prospecting expenses incurred by mining companies (including petroleum mining companies) are generally allowable as a deduction against income of a mining business (or against assessable income from petroleum) in the year in which the expenditure is incurred. Certain expenditure of a capital nature incurred by primary producers in carrying out improvements to their land is deductible over 10 years. Primary producers may also be allowed deductions for amounts subscribed for drought bonds.

Deductions may also be allowed in respect of expenditure on certain plant and machinery incurred after 1 January 1976 (investment allowance). The investment allowance amounts to 40 per cent of the expenditure in respect of eligible expenditure incurred up to 30 June 1978 and 20 per cent for plant ordered between 1 July 1978 and 30 June 1985. Deductions are also allowed by way of a stock valuation adjustment in respect of most classes of trading stock including livestock. The deduction allowable is obtained by applying a prescribed percentage equal to half of the percentage increase in the goods component of the Consumer Price Index between the June quarter prior to the year of income and the June quarter of the year of income. Deductions are also allowable in respect of cash deposits made by primary producers (income equalisation deposits) which fall for inclusion in assessable income on withdrawal or conversion.

Living-away-from-home Allowance. Where an allowance is paid to an employee under any award, industrial agreement, etc.—

(*a*) if it is received in cash and does not exceed $7 per week, a deduction is allowable of the amount of the allowance, up to $5 per week;

(*b*) if it is received otherwise than in cash and exceeds a value of $2 per week but does not exceed a value of $5 per week, a deduction is allowable of the excess of that value over $2 per week.

In any other case the deduction allowable is the amount which the Commissioner deems reasonable but may not exceed the total amount received less $2 per week.

Subscriptions. When they are paid in respect of membership of any trade, business or professional association or union. (Deductions may be limited to $42 in respect of subscriptions to any union, association, etc.)

Interest Payments on Housing Loans. A deduction is allowable for interest paid by a resident on a housing loan, during the first five years of the loan, which is connected with a dwelling being a first home owned by the taxpayer or spouse and used during the whole or part of the year of income as the taxpayer's sole or principal residence. Where a loan is used to acquire vacant land the concession is not available for interest paid before the year of income in which a dwelling erected on the land is occupied by the taxpayer.

In allowing the concession the combined net income of a husband and wife is taken into account. Net income means total income from all sources less the expenses incurred in earning it, and includes exempt income other than family allowances or benefits paid by the Commonwealth Government for domiciliary nursing care. Taxpayers with combined net income of $4,000 or less in a year of income may claim the whole of home loan interest payments. Where the combined net income is greater than $4,000 the deduction is reduced by 1 per cent for each $100 of the excess. No deduction is allowable where the combined net income is $14,000 or more.

Gifts. Those of $2 and upwards made to specified funds, authorities and institutions including public benevolent institutions, approved research institutions for scientific research, building funds for schools conducted by non-profit organisations, etc.

Rebates of Tax

From the gross amount of tax calculated by applying the relevant rate to the taxpayer's taxable income, a deduction is made for any rebates allowable to the taxpayer.

Dependant, housekeeper and sole parent rebates. A concessional rebate of the relevant amount specified below for each *dependant* is allowable to a resident taxpayer if, during the whole of the year of income, the taxpayer is the sole contributor to the dependant's maintenance and that dependant does not have a separate net income in excess of $170 (in 1976–77 and $189 in 1977–78).

	Maximum rebate	
Dependant	*1976–77*	*1977–78*
Spouse, daughter-housekeeper	500	555
Parent or parent-in-law	452	501
Invalid relative	226	251

If a person in one or other of these dependant categories is a dependant during part only of the year of income (such a person residing with the taxpayer is ordinarily regarded as a dependant throughout the period of residence), the maximum rebate is proportionately reduced.

Where a person has a separate net income in excess of $170 (in 1976–77 and $189 in 1977–78) while a dependant of a taxpayer, the rebate otherwise allowable is reduced by $1 for every $4 by which the separate net income exceeds $170 (in 1976–77 and $189 in 1977–78), irrespective of the period over which the person has derived the income. When two or more people contribute to the maintenance of a person who is a dependant of both of them, the rebate allowable is apportioned between the contributing taxpayers.

A concessional rebate of $500 (in 1976–77 and $555 in 1977–78) is allowable to a resident taxpayer in respect of a *housekeeper* who, during the whole of the year of income, is wholly engaged in keeping house in Australia for the taxpayer and has the care of (*a*) a child or step-child of the taxpayer, less than 16 years of age; (*b*) an invalid relative in respect of whom the taxpayer is entitled to a rebate or any child under 16 years classed as a dependant for this purpose; or (*c*) the taxpayer's spouse if in receipt of an invalid pension under the Social Services Act.

If these conditions apply for only part of the year, a proportionate rebate may be allowed. Where the taxpayer is married, a rebate may be allowable for a housekeeper if the housekeeper is engaged in caring for an invalid spouse (*see* (*c*) above) or the Commissioner is of the opinion that, because of special circumstances, it is just to allow a rebate. The rebate is not allowable in respect of any period during which the taxpayer is entitled to a deduction for a daughter-housekeeper.

A concessional rebate of $350 (in 1976–77 and $388 in 1977–78) is allowable to a *sole parent*, i.e., a resident single, widowed or divorced person who has the sole care of a child under sixteen years of age or a student (up to 25 years of age), receiving full-time education at a school, college or university), whose separate net income is ordinarily less than $1,074 (1976–77 or $1,193, 1977–78). The sole parent rebate is not allowable where the taxpayer is entitled to a rebate for a housekeeper or daughter-housekeeper or is living in a de-facto relationship.

Concessional rebates

Rebates may be allowed to resident taxpayers in respect of the expenses listed below. The amount of the rebate is $610 in 1976–77 or 40 per cent of the total of the expenses in respect of which rebates are allowable, whichever is the greater, but the rebate cannot exceed the tax otherwise payable. As $610 is 40 per cent of $1,525, a taxpayer whose rebatable expenses do not exceed $1,525 does not need to itemize those expenses in order to be allowed this rebate. For the 1977–78 income year there is no general concessional rebate, but concessional expenditure in excess of $1,590 is allowed as a rebate at the rate of 32 per cent. The items of expenditure subject to rebate are as follows:

Medical, dental, optical, etc. expenses. Rebates are allowable in respect of medical, dental, optical and therapeutic treatment expenses paid by the taxpayer, less any amounts in respect of those expenses which are received or receivable by the taxpayer or any other person from a Government or friendly society or medical benefit fund. Included are amounts paid in respect of artificial limbs and eyes, hearing aids and medical and surgical appliances and the remuneration of an attendant of a person who is blind or permanently confined to a bed or invalid chair. Domiciliary nursing care benefits are to be disregarded in calculating the rebatable amount in respect of medical expenses.

Rebates in respect of the above medical, etc. expenses are allowable only for expenditure in respect of a resident taxpayer, spouse, children under 21 years of age or any other 'dependant' resident in Australia, but not a 'housekeeper'.

Funeral, burial or cremation expenses. Rebates are allowable only in respect of the taxpayer's spouse, children under 21 years of age or any other 'dependant', but not a 'housekeeper', provided the dependant was a resident of Australia at the time of death. The amount of expenses allowable in respect of any one dependant is limited to $100.

Payments to medical or hospital benefit funds. For the personal benefit of the taxpayer, his spouse or children, but only where paid before 1 October 1976 and excluding amounts for 'basic health insurance'.

Adopted children. Legal expenses and court costs of the kind normally incurred by a taxpayer in adopting a child.

Payments of life, sickness and accident insurance premiums and *payments to a Friendly Society, Superannuation, Sustentation or similar Fund.* Amounts subject to rebate are limited to a total of $1,200 in respect of such payments made on behalf of the taxpayer, his spouse or children. Where policies are taken out on or after 1 January 1973 or where the first premium of a policy was paid on or after that date, rebates for premiums of such policies are *not* allowable if the benefits, other than death benefits, are payable within a period of 10 years of commencement of risk.

Education expenses. An amount not exceeding $250 is allowed in respect of each child of the taxpayer or 'dependant' under 25 years of age receiving full-time education. Education expenses include expenditure for recognised school uniforms, on school fees, board and accommodation, text books, stationery, equipment and fares.

Self-education expenses. These are allowable where they are paid by the taxpayer for or in connexion with a course of education undertaken by him for the purpose of gaining qualifications for use in carrying on a profession, business or trade or in the course of employment. The maximum amount subject to rebate is $250.

Calls. One-third of the amount of calls paid by the taxpayer in the year of income on shares owned by him in a company carrying on as its principal business afforestation in Australia.

Rates and land taxes. These are allowable when they are paid by a taxpayer who is personally liable. The maximum amount rebatable is $300 and must be in respect of a sole or principal place of residence.

Other rebates

Zone allowance rebate. A separate rebate is allowable to resident taxpayers who have resided in Zone A or B (prescribed isolated areas) for more than one half of the income year. The rebates are as follows.

(a) Zone A: a rebate equal to the sum of $216 and 25 per cent of certain amounts in respect of dependants, sole parent and housekeeper;
(b) Zone B: a rebate equal to the sum of $36 and 4 per cent of those amounts stipulated under Zone A.

The amount in respect of dependants, sole parent and housekeeper that may be the subject of a 25 per cent (Zone A) or 4 per cent (Zone B) increment to the basic zone allowance are:

	1976–77		1977–78	
	$		$	
Sole parent	350		388	
Housekeeper	500	*	555	*
Spouse, daughter-housekeeper	500		555	
Parent or parent-in-law	452		501	
One child under 16 years, not being a student	226		251	
Each other child under 16 years, not being a student	170		189	
Student	226		251	
Invalid relative	226		251	

* Where one of these persons has a separate net income in excess of $170 in 1976–77 ($189 in 1977–78) while a dependant of a taxpayer, the amount to be taken into account is reduced by $1 for every $4 by which that income exceeds $170 ($189 in 1977–78), irrespective of the period over which it was derived. Where two or more people contribute to the maintenance of a person who is a dependant of both of them, the amount to be taken into account is apportioned between the contributing taxpayers.

'Child' or 'children' includes a legally adopted child, a step-child or ex-nuptial child of the taxpayer. 'Student' means a person less than 25 years of age who is receiving full-time education at a school, college or university.

Overseas service rebate. Separate rebates are also allowable to certain members of the Defence Force serving in prescribed overseas localities. Where the period of service is more than one-half of the year of income, the rebate is equal to the Zone A rebate. Where the period is less than one-half of the year of income, a proportionate part of the Zone A rebate is allowable.

Rebate for government and other loan interest. A rebate of tax may be allowed in respect of certain Government and other loan interest included in an individual's taxable income. Particulars are given on page 593.

Effective exemption from tax

For the income years from 1963–64 to 1971–72 inclusive, the income of a taxpayer without dependants was exempt from income tax if it did not exceed $416. For years 1972–73 to 1974–75 inclusive the income of a taxpayer without dependants was exempt from income tax if it did not exceed $1,040. In 1975–76 and 1976–77 after the application of the general concessional rebate of $540 and $610 respectively to resident taxpayers, the corresponding figures were $2,518 and $2,845. In 1977–78, with the composite tax scale applying, the figure is $3,402. The effect of deductions or rebates for dependants was to exempt resident taxpayers up to the incomes shown in the samples hereunder.

RESIDENT TAXPAYERS: EFFECTIVE EXEMPTIONS FROM INCOME TAX
($)

	Taxpayer with—					
			Wife and—			
Income years ended June—	No dependants	Wife only	one child	two children	three children	four children
1964 to 1967	416	702	884	1,014	1,144	1,274
1968 to 1972	416	728	936	1,092	1,248	1,404
1973 and 1974	1,040	1,404	1,664	1,872	2,080	2,288
1975	1,040	2,468	3,148	3,564	3,980	4,304
1976	2,518	4,000	4,740	(a)5,228	(b)5,800	(c)6,371
1977	2,845	4,697	4,697	4,697	4,697	4,697
1978	3,402	5,335	5,335	5,335	5,335	5,335

(a) Neither of whom is a student child. (b) Including one student child. (c) Including two student children.

Rates of income tax on individuals

The tables on pages 593 and 594 show the rates of income tax for income years 1976–77 and 1977–78. Rates for income years 1954–55 to 1973–74 were published in Year Book No. 60, page 590. Rates for income years 1974–75 and 1975–76 were published in Year Book No. 61, page 586.

For *primary producers* the rate of income tax for the current year is, in general, determined by the average of the taxable incomes of the five years up to and including the current year, the taxable income for averaging purposes being in each case limited to $16,000. For the 1976–77 income year the application of the averaging provisions was limited to that part of the taxable income which does not exceed $16,000, any balance being taxed at ordinary rates applicable to that part of the taxable income. Tax payable for the 1977–78 income year is the sum of 58.3 per cent of the tax that would have been payable at the rates that applied prior to the 1977–78 Budget and 41.7 per cent of the tax at the new standard tax scale (see page 594). The rates that applied prior to the 1977–78 were those on the schedule on page 594 indexed by the indexation factor of 1.109. In the calculation of averaging under the standard scale, which applied notionally from 1 February 1978, the $16,000 limit in the application of averaging was removed and the averaging arrangements were applied only if they benefited the taxpayer; otherwise normal rates applied.

The taxable income, including abnormal receipts, of *actors*, *artists*, *inventors*, etc. is taxed at the rate appropriate to the normal taxable income plus one-third of the abnormal receipts.

Interest derived from bonds, etc.

Interest derived from bonds, etc., issued between 1 January 1940 and 31 October 1968 by the Commonwealth Government, or on certain State semi-government loans issued free of State income tax, is subject to a rebate of income tax of 10 cents for each $1 of interest received. The rebate does not apply to interest received from bonds, etc., issued on or after 1 November 1968.

Indexation of the Personal Income Tax System

For explanation of tax indexation see Year Book No. 61, page 584.

Health Insurance Levy

From 1 October 1976 a person was liable to the health insurance levy if appropriate private health insurance cover had not been taken out.

For 1976–77, the levy payable is at the rate of 1.875 per cent of a person's taxable income. However, no person is to be assessed to a levy of (a) more than $225 where a taxpayer has dependants and (b) more than $112.50 in the case of a taxpayer without dependants.

For 1977–78, the levy is payable at a rate of 2.5 per cent of taxable income to a maximum of $300 for a person with dependants and $150 for a person without dependants.

The taxable income levy exemption levels in 1976–77 are $2,605 for a single taxpayer, $4,299 for a taxpayer with a dependant spouse and $3,790 for a sole parent taxpayer. For 1977–78, the levy exemption levels are $3,113, 4,912 and $4,384 respectively.

INCOME TAX—INDIVIDUALS: GENERAL RATES, 1976-77 INCOME YEAR

Total taxable income			
Column 1 Not less than—	*Column 2 Not more than—*	*Tax on amount on column 1*	*Tax on each further $1 of income*
$	$	$	c
1	2,260	0	20
2,260	5,650	452.00	27
5,650	11,300	1,367.30	35
11,300	16,950	3,344.80	45
16,950	22,600	5,887.30	55
22,600	28,250	8,994.80	60
28,250 and over	..	12,384.80	65

Tax is not payable by an individual unless the taxable income exceeds $1,040. Where it exceeds $1,040 but does not exceed $1,492, the tax is limited to 66 per cent of the excess. However, because of the general concessional rebate of $610 allowable to all resident taxpayers, a resident taxpayer who is not subject to averaging or to the notional income provisions, and who has a taxable income of less than $2,846, does not pay tax. The tax-free point is different for those who are subject to the averaging of national income provisions, or are entitled to concessional rebates in addition to the general concessional rebate.

INCOME TAX—INDIVIDUALS: COMPOSITE RATES, 1977-78 INCOME YEAR

Total taxable income			
Column 1 Not less than—	*Column 2 Not more than—*	*Tax on amount in column 1*	*Tax on each further $1 of income*
$	$	$	c
1	3,402	. .	. .
3,402	3,750	. .	27.000
3,750	6,266	93.96000	29.085
6,266	12,532	825.73860	33.749
12,532	16,000	2,940.45094	39.579
16,000	18,798	4,313.05066	45.417
18,798	25,063	5,583.81832	51.247
25,063	31,329	8,794.44287	54.162
31,329	32,000	12,188.23379	57.077
32,000 and over	. .	12,571.22046	62.915

The above scale represents a combination of the 1976–77 scale indexed to 1977–78 (adjusted by a factor of 1.109) and the new standard rate scale, the latter to apply notionally from 1 February 1978. The scale to apply notionally prior to 1 February 1978 includes a general concessional rebate of $676. Under the standard scale the general concessional rebate was replaced by a zero rate step applicable to the first $3750 of taxable income. The standard rate scale, to apply in 1978–79 subject to an indexation factor to be arrived at by applying half of the adjustment given by the annual indexation rules, is as follows:

INCOME TAX—INDIVIDUALS: GENERAL RATES OPERATIVE FROM 1 FEBRUARY 1978

Total taxable income			
Column 1 Not less than—	*Column 2 Not more than—*	*Tax on amount in column 1*	*Tax on each further $1 of income*
$	$	$	c
1	3,750	nil	nil
3,750	16,000	nil	32
16,000	32,000	3,920	46
32,000 and over	. .	11,280	60

Tax payable for the 1977–78 income year is, in effect, the sum of 58.3 per cent of the tax that would have been payable at the rates that applied prior to the 1977–78 Budget and 41.7 per cent of the tax at the new standard tax scale (see composite 1977–78 scale).

Income tax payable on specified incomes

The following table shows, for the income years 1971–72 to 1977–78, the actual income tax payable by taxpayers with various incomes and numbers of dependants. For 1974–75 allowance has been made for the low income family rebate, and in 1975–76 and 1976–77, the general concessional rebates of $540 and $610 respectively have been applied. For 1977–78 the composite rate scale has been used, which incorporates the general concessional rebate. Prior to 1975–76 a concessional deduction system operated for dependants; this was replaced by a system of rebates.

FEDERAL INCOME TAX PAYABLE ON SPECIFIED INDIVIDUAL INCOMES 1967-68 TO 1975-76 INCOME YEARS

($)

Net Income(a)	*1971–72*	*1972–73 and 1973–74*	*1974–75*	*1975–76*	*1976–77(c)*	*1977–78(c)*
			TAXPAYER WITH NO DEPENDANTS			
$						
1,000 . . .	50.41	..	..	..	..	..
3,000 . . .	424.28	359.50	220.00	130.00	41.80	..
5,000 . . .	1,045.32	917.30	680.00	670.00	581.80	457.52
7,000 . . .	1,817.06	1,630.10	1,380.00	1,370.00	1,229.80	1,073.45
10,000 . . .	3,196.48	2,888.70	2,780.00	2,420.00	2,279.80	2,085.92
15,000 . . .	6,018.78	5,490.70	5,470.00	4,670.00	4,399.80	3,917.26
20,000 . . .	9,212.66	8,448.70	8,420.00	7,420.00	6,954.80	6,199.80
			TAXPAYER WITH DEPENDANT WIFE			
1,000 . . .	21.51	..	..	..	..	..
3,000 . . .	347.51	283.35	74.40	..	..	..
5,000 . . .	936.00	801.00	534.40	270.00	81.80	..
7,000 . . .	1,688.75	1,492.14	1,234.40	970.00	729.80	518.45
10,000 . . .	3,045.06	2,728.17	2,605.28	2,020.00	1,779.80	1,530.92
15,000 . . .	5,835.11	5,291.95	5,269.80	4,270.00	3,899.80	3,362.26
20,000 . . .	9,009.45	8,229.20	8,201.60	7,020.00	6,454.80	5,644.80
			TAXPAYER WITH DEPENDANT WIFE AND ONE CHILD			
1,000 . . .	8.12	..	..	..	..	..
3,000 . . .	299.54	232.97	..	..	..	..
5,000 . . .	866.75	722.22	430.40	70.00	81.80	..
7,000 . . .	1,603.22	1,394.13	1,130.40	770.00	729.80	518.45
10,000 . . .	2,944.11	2,613.51	2,480.48	1,820.00	1,779.80	1,530.92
15,000 . . .	5,712.67	5,149.99	5,126.80	4,070.00	3,899.80	3,362.26
20,000 . . .	8,873.98	8,072.42	8,045.60	6,820.00	6,454.80	5,644.80
			TAXPAYER WITH DEPENDANT WIFE AND TWO CHILDREN(b)			
1,000 . . .	..	..	..	..	..	
3,000 . . .	265.61	197.19	..	..	..	
5,000 . . .	814.80	659.20	347.20	..	81.80	..
7,000 . . .	1,540.97	1,319.87	1,047.20	620.00	729.80	518.45
10,000 . . .	2,868.39	2,521.78	2,380.64	1,670.00	1,779.80	1,530.92
15,000 . . .	5,620.83	5,036.42	5,012.40	3,920.00	3,899.80	3,362.26
20,000 . . .	8,772.37	7,947.00	7,920.80	6,670.00	6,454.80	5,644.80

(*a*) Income remaining after allowing all deductions other than concessional deductions and deductions for dependants. (*b*) Neither of whom is a student. (*c*) For 1976-77 and 1977-78 rebates for children and students are replaced by family allowances (formerly child endowment).

Income tax assessments—Individuals

The following table shows for the 1974–75 income year the number of taxpayers, income, and net income tax assessed for individuals.

FEDERAL INCOME TAX ASSESSMENTS(*a*): TAXABLE INDIVIDUALS BY GRADE OF NET INCOME AND BY OFFICE OF ASSESSMENT

(Income derived in the year 1974–75)

Grade of net income(b) and office of assessment	*Taxpayers*			*Net income(b)*	*Total taxable income(c)*	*Net income tax assessed*
	Males	*Females*	*Total*			
$ $	No.	No.	No.	$'000	$'000	$'000
Under 1,200 . .	19,301	30,932	50,233	53,902	52,959	925
1,200– 1,999 . .	107,849	216,320	324,169	518,616	486,614	14,790
2,000– 2,499 . .	69,791	140,426	210,217	473,637	439,834	19,772
2,500– 2,999 . .	95,836	164,687	260,523	717,309	663,463	35,812
3,000– 3,499 . .	105,436	165,631	271,067	880,364	805,762	54,629
3,500– 3,999 . .	109,681	161,141	270,822	1,015,447	924,492	77,668
4,000– 4,499 . .	119,183	164,475	283,658	1,206,120	1,093,446	107,760
4,500– 4,999 . .	134,880	168,749	303,629	1,443,176	1,303,206	146,517
5,000– 5,499 . .	163,200	179,137	342,337	1,799,103	1,614,670	202,544
5,500– 5,999 . .	201,900	163,604	365,504	2,101,509	1,860,529	255,389
6,000– 6,499 . .	232,524	122,706	355,230	2,219,247	1,929,781	285,162
6,500– 6,999 . .	248,961	86,852	335,813	2,265,709	1,938,001	307,434
7,000– 7,499 . .	251,731	65,373	317,104	2,297,640	1,943,105	330,903
7,500– 7,999 . .	236,522	48,830	285,352	2,209,565	1,854,358	338,198
8,000– 8,499 . .	211,969	36,603	248,572	2,048,457	1,711,640	333,401
8,500– 8,999 . .	177,808	28,207	206,015	1,800,984	1,501,150	310,426
9,000– 9,499 . .	153,087	22,317	175,404	1,621,590,	1,345,609	293,470
9,500– 9,999 . .	128,215	19,033	147,248	1,434,440	1,190,181	273,311
10,000–10,999 . .	196,642	26,859	223,501	2,339,362	1,941,233	475,885
11,000–11,999 . .	135,718	17,906	153,624	1,762,174	1,467,161	389,639
12,000–12,999 . .	93,699	12,277	105,976	1,321,471	1,105,217	313,813
13,000–13,999 . .	62,850	8,586	71,436	962,069	811,446	244,246
14,000–14,999 . .	45,666	6,180	51,846	750,737	636,048	200,790
15,000–19,999 . .	100,604	16,517	117,121	1,985,132	1,717,202	598,090
20,000–29,999 . .	44,952	8,188	53,140	1,259,321	1,128,078	486,237
30,000–49,999 . .	15,193	2,563	17,756	650,795	600,225	310,864
50,000 and over . .	3,429	596	4,025	285,663	270,984	163,090
Office—						
New South Wales .	1,221,754	741,232	1,962,986	13,436,126	11,635,457	2,391,695
Victoria . . .	966,346	606,210	1,572,556	10,579,292	9,115,705	1,860,357
Queensland . .	486,970	270,637	757,607	5,054,309	4,368,350	886,820
South Australia .	328,835	197,189	526,024	3,409,009	2,947,825	565,973
Western Australia .	294,698	170,757	465,455	3,087,381	2,670,926	530,851
Tasmania . .	105,639	56,602	162,241	1,064,186	917,430	180,392
Northern Territory .	16,236	8,811	25,047	188,147	152,841	32,388
Australian Capital Territory . .	46,149	33,257	79,406	605,090	527,861	122,289
Total . .	**3,466,627**	**2,084,695**	**5,551,322**	**37,423,540**	**32,336,395**	**6,570,765**

(*a*) Assessments in respect of 1974–75 incomes. Assessments issued after that date are not included. (*b*) Net income is 'Total assessable income less total deductions for expenses incurred in gaining assessable income'. (*c*) Taxable income is the income remaining after deducting from assessable income all allowable deductions.

Details of the number of individual taxpayers and net income tax assessed by grades of income for the income years 1972–73 to 1974–75 are shown in the following table.

FEDERAL INCOME TAX ASSESSMENTS: TAXABLE INDIVIDUALS, BY GRADE OF INCOME(*a*) (INCOME YEARS 1972-73 TO 1974-75)

	1972–73		*1973–74*			1974–75	
Grade of net income(a)	*Tax-payers*	*Net income tax assessed*	*Tax-payers*	*Net income tax assessed*	*Grade of net income(a)*	*Tax-payers*	*Net income tax assessed*
$ $	No.	$'000	No.	$'000	$ $	No.	$'000
Under 1,200	60,889	2,212	60,344	2,235	Under 1,200	50,233	925
1,200– 1,399	107,348	6,777	98,876	6,271	1,200– 1,999	324,169	14,790
1,400– 1,599	128,419	10,393	106,045	8,957	2,000– 2,499	210,217	19,772
1,600– 1,799	139,931	14,063	112,957	11,877	2,500– 2,999	260,523	35,812
1,800– 1,999	144,579	17,920	119,456	15,134	3,000– 3,499	271,067	54,629
2,000– 2,199	154,334	23,147	134,047	19,219	3,500– 3,999	270,822	77,668
2,200– 2,399	162,679	29,125	141,597	23,572	4,000– 4,499	283,658	107,760
2,400– 2,599	168,304	35,129	141,360	27,729	4,500– 4,999	303,629	146,517
2,600– 2,799	177,015	42,419	143,344	32,925	5,000– 5,499	342,337	202,544
2,800– 2,999	180,490	48,868	145,391	38,411	5,500– 5,999	365,504	255,389
3,000– 3,199	186,795	56,457	149,067	44,994	6,000– 6,499	355,230	285,162
3,200– 3,399	190,587	63,716	153,618	52,222	6,500– 6,999	335,813	307,434
3,400– 3,599	193,855	70,987	158,850	60,388	7,000– 7,499	317,104	330,903
3,600– 3,799	193,507	76,839	160,511	67,697	7,500– 7,999	285,352	338,198
3,800– 3,999	189,861	81,290	167,567	78,172	8,000– 8,499	248,572	333,401
4,000– 4,249	233,341	108,430	212,792	108,845	8,500– 8,999	206,015	310,426
4,250– 4,499	225,352	114,390	210,210	118,155	9,000– 9,499	175,404	293,470
4,500– 4,749	218,251	120,788	204,653	125,221	9,500– 9,999	147,248	273,311
4,750– 4,999	206,590	124,259	198,327	131,242	10,000–10,999	223,501	475,885
5,000– 5,249	191,094	124,494	194,894	139,011	11,000–11,999	153,624	389,639
5,250– 5,499	175,858	124,190	191,139	146,663	12,000–12,999	105,976	313,813
5,500– 5,749	158,623	120,957	186,321	153,342	13,000–13,999	71,436	244,246
5,750– 5,999	139,807	114,676	175,650	154,368	14,000–14,999	51,846	200,790
6,000– 6,499	232,368	210,342	318,917	309,221	15,000–19,999	117,121	598,090
6,500– 6,999	184,468	189,487	272,942	299,369	20,000–29,999	53,140	486,237
7,000– 7,499	139,415	160,778	224,913	276,240	30,000–49,999	17,756	310,864
7,500– 7,999	107,151	138,036	184,126	251,450	50,000–99,999	3,603	127,107
8,000– 8,999	150,535	224,083	262,456	412,178	100,000 and over	422	35,983
9,000– 9,999	91,752	164,984	170,032	318,122			
10,000–14,999	166,167	437,542	295,732	795,326			
15,000–19,999	43,810	214,125	71,515	352,614			
20,000–29,999	23,538	204,238	37,497	329,827			
30,000–49,999	7,677	128,284	12,025	204,826			
50,000 and over	1,862	77,902	2,833	111,915			
Total	**5,076,252**	**3,681,326**	**5,420,004**	**5,227,738**	**Total**	**5,551,322**	**6,570,765**

(*a*) Net income is 'Total assessable income less total deductions for expenses incurred in gaining that income'.

Partnerships and trusts

Income tax returns are required to be lodged on behalf of partnerships and trusts which, as partnerships and trusts, are not required to pay tax except in certain specified circumstances when they may be assessed as individuals. In general, the net income remaining after allowing all deductions including expenditure incurred in gaining the income is distributed to the partners or beneficiaries concerned and is assessable for tax in the respective individual returns.

The following table shows for the 1974–75 income year numbers, total business income and net income of partnerships and trusts. Greater detail is published in the statistical supplement to the annual report of the Commissioner of Taxation and in the report itself.

PARTNERSHIPS AND TRUSTS—INCOME YEAR 1974-75

Item		*Partnerships*	*Trusts*	*Total*
Number		456,193	131,294	587,487
Total business income	$'000	11,331,232	446,147	11,777,379
Net income(*a*)	$'000	4,022,460	510,222	4,532,682

(*a*) Total net income adjusted by subtraction of loss.

Taxes on income—companies

For taxation purposes companies are divided into two main groups—private and public. Broadly, a private company is defined as a company in which all the issued shares are held by not more than twenty persons; or which is capable of being controlled by not more than seven persons, and which is not a company in which the public is substantially interested; or which is a subsidiary of a public company. All other companies are regarded as public companies. Both private and public companies pay primary tax assessed on a taxable income ascertained on the same principles as for individuals.

Dividends received are assessable income; however, while resident companies receive a rebate at the average rate on the amount of dividends included in the taxable income, this rebate is not allowed to non-resident companies.

A private company is liable to pay additional tax upon the amount, if any, by which the dividends paid by the company within a prescribed period fall short of sufficient distribution as defined.

Rates of tax. The rates of primary income tax for all companies and additional tax for private companies applicable to income years 1959-60 to 1972-73 are shown in the following table.

RATES OF INCOME TAX: COMPANIES, 1959-60 TO 1972-73 INCOME YEARS

(Cents per $)

	Resident private company			*Resident public company(a)*		*Non resident company*			
	On taxable income		*Additional tax on undistributed income*	*On taxable income*		*On dividends income*		*On other income*	
Income years ended June	*Up to $10,000*	*On remainder*		*Up to $10,000*	*On remainder*	*Up to $10,000*	*On remainder*	*Up to $10,000*	*On remainder*
1960 to 1963	25	35	50	35	40	30	40	35	40
1964 to 1967	27.5	37.5	50	37.5	42.5	32.5	42.5	37.5	42.5
1968 and 1969	30	40	50	40	45	35	45	40	45
1970	32.5	42.5	50	42.5	47.5	37.5	47.5	42.5	47.5
1971 and 1972	37.5	42.5	50	47.5	47.5	42.5	47.5	47.5	47.5
1973	45.0	45.0	50	47.5	47.5	47.5	47.5	47.5	47.5

(*a*) Excludes co-operative, non-profit and life insurance for which the rates of tax (in cents per $) for 1972–73 income year were:

	Taxable income	
Type of company	*Up to $10,000*	*On remainder*
Co-operative	42.5	47.5
Non-profit—Friendly societies' dispensaries	37.5	37.5
Other	42.5	47.5
Mutual life insurance	47.5	47.5
Other life insurance—Mutual income	47.5	47.5
Other income	47.5	47.5

For the income year ended 30 June 1974 the rate for companies other than friendly society dispensaries was 45 per cent, except that for the first $10,000 of taxable income of co-operative and non-profit companies (other than friendly society dispensaries) the rate was 42.5 per cent. The rate for friendly society dispensaries was 37.5 per cent.

For the income years ended 30 June 1975 and 1976 the rate for companies other than friendly society dispensaries was 42.5 per cent and for friendly society dispensaries it was 37.5 per cent.

For the income year ended 30 June 1977 the rates were 46 per cent and 41 per cent respectively. Tax exemption levels for years ended 30 June 1975, 1976 and 1977 are set out below.

A non-profit company is not liable to income tax unless the taxable income exceeds $416. Where the non-profit company is a friendly society dispensary and the taxable income does not exceed $1,664 ($2,311 in 1977), the maximum amount payable is 50 per cent of the excess over $416 less any rebate or credit to which the company is entitled. Where the taxable income of a non-profit company other than a friendly society dispensary does not exceed $1,830 ($2,542 in 1977), the tax payable by the company is limited to 55 per cent of the amount by which the taxable income exceeds $416 less any rebate or credit to which the company is entitled. Other companies are assessed for income tax if the taxable income is $1 or more.

Details in respect of company income tax assessments for the 1974–75 income year are shown in the following table.

FEDERAL INCOME TAX ASSESSMENTS: RESIDENT AND NON-RESIDENT COMPANIES BY GRADE OF INCOME AND OFFICE OF ASSESSMENT

(Income derived in the year 1974-75)

Grade of taxable income(a) ($) and office of assessment	*Taxable*			*Non-taxable*		
	Companies	*Taxable income (a)*	*Net income tax assessed (b)*	*Companies*	*Taxable income (a)(c)*	*Loss(d)*
	No.	$'000	$'000	No.	$'000	$'000
Loss for year	..	..	..	62,424	..	785,339
Nil	..	..	..	31,510	..	..
1– 1,999	34,809	20,218	8,053	5,186	3,894	..
2,000– 9,999	27,936	146,667	56,238	6,037	30,719	..
10,000– 19,999	13,428	192,218	72,934	2,182	30,727	..
20,000– 39,999	10,334	291,609	111,245	1,265	35,230	..
40,000– 99,999	7,770	477,968	180,970	741	44,792	..
100,000– 199,999	3,053	425,549	159,028	269	37,769	..
200,000– 399,999	1,656	464,453	171,947	130	37,137	..
400,000– 999,999	1,124	692,570	246,211	84	49,594	..
1,000,000–1,999,999	438	596,645	200,253	20	27,234	..
2,000,000 and over	479	3,864,183	1,221,889	11	41,989	..
New South Wales	44,158	2,308,321	780,015	54,788	160,183	423,051
Victoria	27,385	3,158,827	1,011,353	21,079	102,382	213,648
Queensland	10,705	885,009	335,362	12,212	21,582	65,621
South Australia	8,676	366,485	134,976	9,452	21,860	29,552
Western Australia	6,334	315,254	123,589	8,115	12,281	37,127
Tasmania	1,864	78,213	27,234	2,104	3,562	8,919
Northern Territory	534	12,035	4,874	517	875	5,113
Australian Capital Territory	1,371	47,935	11,365	1,592	16,358	2,307
Total	**101,027**	**7,172,079**	**2,428,767**	**109,859**	**339,084**	**785,339**

(a) Taxable income is the income remaining after deducting from assessable income all allowable deductions. (b) Excludes additional tax on the undistributed income of private companies. (c) Net tax assessed is nil because of rebates. (d) Not included in the figures shown for taxable income.

Yield of income taxes

Income taxes collected. The following table shows the net amounts of taxes collected and the proportions of the several components over recent years.

FEDERAL INCOME TAXES COLLECTED: COLLECTION YEARS 1972-73 TO 1976-77

Source of income tax	*1972–73*	*1973–74*	*1974–75*	*1975–76*	*1976–77*
NET AMOUNTS COLLECTED ($'000)					
Individuals—					
Instalments—salaries and wages	3,160,681	4,238,391	6,071,293	7,019,706	8,528,863
Other payments	928,797	1,251,872	1,642,726	2,199,685	2,524,781
Companies	1,561,287	1,953,927	2,358,809	2,522,837	2,824,459
Withholding tax—Dividend	51,197	56,648	59,818	62,674	71,969
Interest	21,406	22,588	28,298	32,344	24,408
Total	**5,723,369**	**7,523,426**	**10,160,944**	**11,837,246**	**13,974,480**
PERCENTAGES					
Individuals—					
Instalments—salaries and wages	55.22	56.34	59.75	59.30	61.03
Other payments	16.23	16.64	16.17	18.58	18.07
Companies	27.28	25.97	23.21	21.31	20.21
Withholding tax—Dividend	0.89	0.75	0.59	0.53	0.52
Interest	0.37	0.30	0.28	0.27	0.17
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Refunds of revenue. Income tax collections, as previously shown are net amounts after refunds of revenue made in the course of the year. Refunds are of two types: those charged to special appropriations under authority of the Income Tax Assessment Act and those charged to special appropriations under authority of the Audit Act. Income tax instalment refunds, by far the greatest part of income tax refunds, are made when the instalments deducted during the year exceed the tax assessed on incomes for that year. Refunds made from special appropriations under section 37A of the Audit Act include refunds of moneys paid to the revenue in error, refunds of tax overpaid, refunds due to the amendment of assessments, etc. Refunds of income tax to individuals during the collection years 1972–73 to 1976–77 were: 1972–73, $723,226,000; 1973–74, $862,760,000; 1974–75, $967,924,000; 1975–76, $1,535,935,000; and 1976–77, $1,501,555,000.

Estate duty

Under the *Estate Duty Assessment Act* 1914 estate duty is assessed on the net value of the estate less a statutory exemption determined in accordance with the following formula:

(*a*) where the whole of the estate passes to the widow, widower, children (including adopted children, stepchildren and ex-nuptial children) or grandchildren of the deceased person
—for qualifying estates of deceased primary producers—$48,000
—for other estates—$40,000
decreasing by $2 for every $8 by which the value of the estate exceeds $48,000 or $40,000 as the case may be;

(*b*) where no part of the estate passes to the relatives mentioned in (*a*)
—for qualifying estates of deceased primary producers—$24,000
—for other estates—$20,000
decreasing by $2 for every $8 by which the value of the estate exceeds $24,000 or $20,000 as the case may be; and

(*c*) where part only of the estate passes to the relatives mentioned in (*a*), an amount calculated proportionately under (*a*) and (*b*) above.

The Estate Duty Assessment Amendment Act 1976, provided a new deduction which has the effect of increasing the exemption from estate duty where the whole or part of the estate of a deceased person passes to a surviving spouse. The new deduction excludes from liability for duty the value, up to a maximum of $50,000, of the spouse's interest in the estate. Where an estate passes wholly to a surviving spouse of a deceased person the new deduction, in conjunction with the existing statutory exemptions, entirely exempts from duty estates of a gross value of $90,000. Primary producer estates passing in this way are exempt up to a value of $98,000. Estates of persons who die on or after 18 August 1976 are affected by the amending Act.

As a general rule, the estate of a deceased primary producer would qualify for the higher level of statutory exemption if: (i) the death occurred on or after 25 September 1969; (ii) the deceased person was domiciled in Australia at the time of his death; (iii) during the period of five complete income tax years preceding death, more than one-half of the deceased person's gross income was derived from the carrying on by him of a primary production business in Australia; and (iv) the gross value of rural property in Australia—being land and certain other types of assets used in a primary production business such as livestock and agricultural plant—exceeded the gross value of all other property in the estate. In specified circumstances, dividends and certain other receipts from a family proprietary company in which a deceased person held shares may be treated as income derived from the carrying on by him of a primary production business and the value of the shares may be included, either wholly or in part, in the value of the estate's rural property.

Special exemptions are also allowed in respect of estates of defence personnel who die on active service or within three years of termination of their active service from injuries received or diseases contracted while on active service, and prescribed personal property held in Australia by certain United States personnel who are in Australia solely for purposes connected with projects of the United States Government.

A 'quick succession' rebate of estate duty may be allowable if the deceased was a beneficiary in an estate (upon which duty is payable or has been paid) of a person who pre-deceased him by not more than five years.

A 'rural property' rebate of part of any estate duty attributable to rural property included in the estate of a deceased primary producer may be allowable if the value of the estate (before deducting any statutory exemption) is less than $250,000 and certain conditions are satisfied. The conditions are the same as those governing entitlements to higher levels of statutory exemptions for estates of deceased primary producers, as outlined in the explanations relating to statutory exemptions. If the value of a qualifying estate does not exceed $140,000, the rebate is fifty per cent of any duty attributable to rural property in Australia. Rates of rebate gradually reducing from fifty per cent are applicable to estates having net values between $140,000 and $250,000.

The rates of duty have remained unchanged since 1941 and increase as the value of the estate for duty increases, as follows: does not exceed $20,000, 3 per cent; $20,001 to $40,000, 3 per cent to 6 per cent; $40,001 to $240,000, 6 per cent to 26 per cent; $240,001 to $1,000,000, 26 per cent to 27.9 per cent; $1,000,000 or more, 27.9 per cent.

Particulars of the number and value of dutiable estates and duty assessed for recent assessment years 1971–72 to 1975–76 are given in the following table.

FEDERAL ESTATE DUTY ASSESSMENTS

		1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Estates	No.	18,505	16,734	12,052	13,621	13,447
Gross value as assessed	$'000	1,045,418	969,778	964,804	1,183,913	1,223,732
Deductions(*a*)	,,	192,017	176,324	194,159	242,912	274,953
Statutory exemption	,,	209,377	202,793	238,212	318,706	317,087
Dutiable value	,,	644,024	590,660	532,433	622,295	631,693
Net duty assessed	,,	71,750	64,366	65,981	80,560	83,663
Average dutiable value	$	34,803	35,297	44,178	45,686	46,976
Average duty assessed per estate	$	3,877	3,846	5,475	5,914	6,222

(*a*) Debts, Exempt Estate and State Probate Succession Duties.

Gift duty

The *Gift Duty Act* 1941 and the *Gift Duty Assessment Act* 1941 impose a gift duty on gifts which are defined as dispositions of property made otherwise than by will, without adequate consideration in money or money's worth. There is a liability on both the donor and the donee to furnish a return, and both are jointly and severally liable for payment of the duty. However, if a return is furnished by the donor, the donee is relieved of this obligation.

Certain exemptions from duty are provided, the more important being: payments to an employees' superannuation or like fund; retiring allowances or gratuities granted to employees; gifts to organisations not carried on for the profit of any individual; gifts to the Commonwealth Government or a State; and small gifts not exceeding $100.

The rate of gift duty applicable to any particular gifts is fixed by reference to the total value of all gifts made by the same donor within the period of eighteen months before and eighteen months after the time of making that gift. Where the total value of all gifts as defined does not exceed $10,000 no duty is payable. The present rates of duty are (*a*) $10,001 to $20,000, 3 per cent provided that the gift duty payable shall not exceed one half of the amount by which the gift exceeds $10,000 or a proportionate amount where more than one gift is involved; (*b*) $20,001 to $40,000, 3 per cent to 6 per cent; (*c*) $40,001 to $240,000, 6 per cent to 26 per cent; (*d*) $240,001 to $1,000,000 and over, 26 per cent to 27.9 per cent.

Particulars of the number of gift duty assessments, value of gifts as assessed and duty assessed for recent assessment years are given in the following table.

FEDERAL GIFT DUTY ASSESSMENTS

		1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Assessments	No.	10,425	7,199	6,976	7,514	6,564
Value as assessed	$'000	172,244	130,875	199,454	297,020	164,259
Duty assessed	,,	9,878	7,158	18,037	36,077	10,344

Customs duties

A description of the Australian Customs Tariff System is given in Chapter 24, Overseas Transactions. Details of duties collected on the import of commodities classified in accordance with the 'Brussels Nomenclature' are given in the following table.

NET CUSTOMS DUTIES ACCORDING TO BRUSSELS TARIFF DIVISIONS

($'000)

Brussels Tariff Division	*Source of receipts*	*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*
1	Live animals; animal products	1,114	1,318	983	877	1,183
2	Vegetable products	1,507	1,540	2,067	969	1,100
3	Animal and vegetable fats and oils and their cleavage products; prepared edible fats; animal and vegetable waxes	1,184	1,481	929	156	2,281
4	Prepared foodstuffs; beverages, spirits and vinegar; tobacco	69,975	76,556	101,161	133,875	153,588
5	Mineral products	7,759	14,278	9,083	9,013	10,710
6	Products of the chemical industry and allied industries	14,625	14,967	12,045	13,008	14,343
7	Artificial resins and plastic materials, cellulose esters and ethers, and articles thereof; rubber, synthetic rubbers, factice and articles thereof	20,990	26,595	26,751	32,695	39,214
8	Raw hides and skins, leather, furskins and articles thereof; saddlery and harness; travel goods, handbags and similar containers; articles of gut (other than silkworm gut)	4,349	4,619	5,588	6,401	8,994
9	Wood and articles of wood; wood charcoal; cork and articles of cork; manufactures of straw, of esparto and of other plaiting materials; basketware and wickerwork	9,025	10,401	12,509	11,979	15,103
10	Paper-making material; paper and paperboard and articles thereof	11,165	12,392	13,368	13,306	12,804
11	Textiles and textile articles	68,994	75,380	96,890	107,836	124,300
12	Footwear, headgear, umbrellas, sunshades, whips, riding-crops and parts therefor; prepared feathers and articles made therewith; artificial flowers; articles of human hair; fans	11,741	11,433	14,845	18,129	20,666
13	Articles of stone, of plaster, of cement, of asbestos, of mica and of similar materials; ceramic products; glass and glassware	11,982	12,607	13,269	15,797	17,460
14	Pearls, precious and semi-precious stones, precious metals, rolled precious metals, and articles thereof; imitation jewellery; coin	2,000	2,282	3,170	4,758	6,337
15	Base metals and articles of base metal	28,254	33,229	30,219	40,047	42,380
16	Machinery and mechanical appliances; electrical equipment; parts therefor	96,610	93,971	110,755	188,323	192,670
17	Vehicles, aircraft, and parts therefor; vessels and certain associated transport equipment	66,249	75,076	101,213	175,540	194,282
18	Optical, photographic, cinematographic measuring, checking, precision, medical and surgical instruments and apparatus; clocks and watches, musical instruments; sound recorders and reproducers; television image and sound recorders and reproducers, magnetic; parts therefor	16,173	16,887	18,353	19,911	21,700
19	Arms and ammunition; parts therefor	348	361	368	457	477
20	Miscellaneous manufactured articles	12,228	14,362	17,640	21,167	26,065
21	Works of art, collectors' pieces and antiques	−31	35	52	79	108
	Miscellaneous	7,063	7,535	10,318	19,808	18,388
	Primage	5,457	6,109	2,882	6,391	8,019
	Total customs duties and primage	*468,761*	*513,414*	*604,458*	*840,524*	*932,072*
	Less Remission of duty under special circumstances	29	33	15	9	6
	Total	**468,732**	**513,381**	**604,443**	**840,515**	**932,066**

Excise duties

Details of duties collected in relation to the production of specific commodities are given in the following table.

FEDERAL EXCISE REVENUE: CLASSIFICATION OF NET RECEIPTS
($'000)

Source of revenue	*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Beer	398,330	419,954	462,400	475,963	694,014
Spirits, liqueurs, etc. . . .	27,180	30,501	46,037	62,847	66,941
Tobacco	16,979	15,584	16,703	18,358	21,642
Cigars and cigarettes . . .	291,087	312,780	375,210	453,739	519,347
Cigarette papers	908	845	845	806	948
Petrol	420,856	438,486	595,313	642,183	678,285
Diesel fuel	38,352	42,399	56,215	60,310	66,433
Matches	2,519	2,677	2,717	2,357	2,198
Playing cards	149	148	160	149	141
Grape wine	11,516	3,275	. .	. .	. .
Crude oil and liquid petroleum gas .	. .	. .	. .	. .	264,240
Coal	1,777	2,032	2,199	2,586	2,415
Canned fruit	303	312	368	326	323
Miscellaneous	3,294	−330	−3,521	9,409	14,958
All items	*1,213,250*	*1,268,663*	*1,554,646*	*1,729,033*	*2,331,885*
Diesel fuel taxation	481	511	759	660	871
Less rebates	668	885	824	1,062	1,355
	−187	*−374*	*−65*	*−401*	*−484*
Other rebates	−7	. .	. .	−11	−76
Total	**1,213,056**	**1,268,289**	**1,554,581**	**1,728,620**	**2,331,325**

The quantities of commodities on which excise duty were paid are given in Chapter 24, Overseas Transactions, page 661.

Sales Tax

The general rate of tax levied on all goods other than those specified in the schedules to the *Sales Tax (Exemptions and Classifications) Act* 1935 is 15 per cent and goods subject to special rates are taxed at either 2.5 per cent or 27.5 per cent. Prior to 19 August 1970 these special rates were 2.5 per cent and 25 per cent.

Particulars of the sales of taxable goods in each rate class in each State for 1974–75 and 1975–76, are given in the following table. The figures relate to sales during the period 1 July to 30 June.

FEDERAL SALES TAX: SALE VALUE OF TAXABLE GOODS INCLUDED IN RETURNS IN EACH RATE CLASS

	Gross sales of goods taxable at various rates(a)				
State	*2½%*	*15%*	*27½%*	*Other*	*Total*
1974-75					
	$'000	$'000	$'000	$'000	$'000
New South Wales and A.C.T. . .	645,761	1,792,119	745,834	67,631	3,251,345
Victoria	593,023	1,194,529	444,747	63,347	2,295,646
Queensland	164,599	555,598	158,654	37,459	916,310
South Australia	123,718	348,630	118,661	22,427	613,436
Western Australia	105,824	290,701	92,045	17,629	506,199
Tasmania	29,968	76,674	26,876	5,894	139,412
Northern Territory	1,604	10,745	2,302	2,268	16,919
Australia	**1,664,497**	**4,268,996**	**1,589,119**	**216,655**	**7,739,267**
1975-76					
	$'000	$'000	$'000	$'000	$'000
New South Wales and A.C.T. . .	816,815	1,820,249	1,024,984	62,021	3,724,070
Victoria	688,120	1,295,274	660,333	92,451	2,736,178
Queensland	182,799	597,911	245,453	35,030	1,061,194
South Australia(*a*)	166,660	368,196	177,278	23,602	735,735
Western Australia	123,269	344,741	140,011	10,161	618,181
Tasmania	32,902	72,721	46,207	3,623	155,453
Northern Territory(*a*) . . .	2,204	13,850	3,697	1,499	21,251
Australia	**2,012,769**	**4,512,942**	**2,297,963**	**228,387**	**9,052,061**

(*a*) Estimated.

Sales of taxable goods and sales tax payable for Australia are shown in the following table for recent years. The figures for sales tax payable differ from those for net collections shown on page 587 because the latter include some adjustments in respect of earlier tax years and relate to tax payable on returns lodged during the year, which, in general, cover sales for the period June to May.

FEDERAL SALES TAX: SALE VALUE OF GOODS INCLUDED IN RETURNS AND COLLECTIONS

($'000)

			Net collections		
Year of sale	*Gross taxable sales*	*Estimated net taxable sales(a)*	*Taxation Office*	*Bureau of Customs*	*Total*
	(*b*)	(*b*)			
1970–71	4,132	3,940	610	23	633
1971–72	(*c*)4,434	(*c*)4,239	661	22	683
1972–73	4,996	4,798	741	24	765
1973–74	(*d*)6,606	6,293	935	34	969
1974–75	(*d*)7,739	7,345	1,103	51	1,154
1975–76	(*d*)9,044	8,586	1,360	49	1,408
1976–77	(*d*)10,752	10,220	1,599	61	1,660

(*a*) Represents gross taxable sales less discounts, goods returned, bad debts and other adjustments. (*b*) Statistics obtained from returns lodged at Taxation Office. (c) Adjusted. (d) Estimated.

In the foregoing tables, sales include goods transferred to stock for sale by retail, goods imported by persons other than registered taxpayers, and goods used in the business of the taxpayer. Exempt sales relate to goods exempted from sales tax under the *Sales Tax (Exemptions and Classifications)*

Act 1935. The figures shown do not represent the total sales of all commodities, as vendors trading only in exempt goods are not required to be registered and, consequently, the volume of their sales is not included. In addition, non-taxable sales (i.e. goods sold by one registered taxpayer to another registered taxpayer) are excluded.

Primary production taxes and charges

The following section shows current rates of charges on, and receipts from, primary production and other charges. Further information relating to primary production charges is given in Chapter 13, Rural Industry.

Wheat export charge and wheat tax. For details *see* Chapter 13, Rural Industry.

Wool tax. The rate of wool tax applicable to transactions in wool in the period 2 September 1974 to 18 August 1975 was 7.75 per cent. From 19 August 1975 the rate has been 8 per cent.

Miscellaneous export charges. These consist of charges levied on exports of apples and pears (*Apple and Pear Export Charge Act* 1976), canned fruits (*Canned Fruits Export Charges Act* 1926), dried fruits (*Dried Fruits Export Charges Act* 1924), eggs (*Eggs Export Charges Act* 1947) and honey (*Honey Export Charges Act* 1973).

Tobacco charge. The rates of tobacco charge currently in force are as follows:

(*a*) in respect of leaf grown in Australia and sold to a manufacturer:

- (i) 1.1 cents per kilogram of leaf, payable by the grower or other persons who own the leaf immediately before sale, and
- (ii) 2.2 cents per kilogram of leaf, payable by the manufacturer;

(*b*) in respect of leaf grown and used by grower-manufacturers:

- (i) 1.1 cents per kilogram of leaf where the manufacturer grows nine-tenths of the Australian tobacco leaf used by him, and
- (ii) 2.2 cents per kilogram of leaf in other cases.

(*See also* Chapter 13, Rural Industry.)

Dairying Research and Promotion Levy. The Dairying Industry Research and Promotion Levy Act 1972 came into operation on 1 July 1972. It imposes a levy on all whole milk produced in Australia and is payable either on a butterfat or gallonage basis, according to the normal method of payment to producer by the purchaser. The present operative rates of levy are 6.3 cents per 100 litres of whole milk or 157.25 cents per 100 kilograms of butterfat. (*See also* Chapter 13, Rural Industry.)

Canning-fruit charge. The rate of charge from 1 December 1973 until 1 December 1976 was $1 per tonne and then $0.70 per tonne until 6 January 1978, when it was increased to $1 per tonne.

Honey levy. The current rate of levy on honey sold for domestic consumption in Australia is 1.3 cents per kilogram.

Livestock slaughter levy. The present operative rate of levy for cattle is $1.56 per head, of which $1 is for eradication of endemic cattle disease, 25 cents is for beef research, 1 cent is for research into the meat processing industry and 30 cents is to finance the operations of the Australian Meat Board. For sheep and lambs the levy is 4.85 cents per head and the components are 1.75 cents for sheep meat research, 0.10 cents for research into the meat processing industry and 3.00 cents for the Australian Meat Board.

Poultry industry levy. The rates of levy for each hen kept for commercial purposes (the first twenty hens being exempt) were 4.0 cents per fortnight from 1 July 1971 to 8 June 1972, nil per fortnight from 9 June 1972 to 30 June 1972 and 4.0 cents per fortnight from 1 July 1972.

Chicken meat levy. The rate of levy is 10 cents per hundred meat chickens hatched, payable by any hatchery with 20,000 chickens or more.

Pig slaughter levy. The present operative rate of levy is 13 cents for each pig slaughtered for human consumption.

Wine grapes charges. The *Wine Grapes Charges Act* 1929 imposes a levy, which is payable by the owner of a winery or distillery, on all grapes delivered to that winery for use in the manufacture of wine. No charge is payable unless 10 tonnes or more of grapes have been used in the manufacture of wine during a season. The operative rate of charge as from 25 January 1973 is $2.40 per tonne of fresh grapes and $7.20 in respect of dried grapes.

Dried vine fruits levy. The *Dried Vines Fruits Levy Act* 1971 imposes a levy on dried vine fruit where the average return for a season exceeds by more than $10 the amount per tonne that constitutes the base price for that season, with a maximum of $20 per tonne.

Apple and pear levy. The *Apple and Pear Levy Act* 1976 imposes a levy of 5 cents per box on the production and sale of apples and pears excluding those delivered for the manufacture of canned fruit or for export.

Apple and pear stabilisation export duty. The *Apple and Pear Stabilisation Export Duty Act* 1971 imposes an export duty on the exportation on consignment of fruit of a season where the average export return for a season exceeds the support price for that season. The maximum rate of export duty is $2 per box on apples and 80 cents per box on pears.

Dried fruits levy. The *Dried Fruits Levy Act* 1971 imposes a levy on dried fruits of a season received for packing. The rate of levy is in the case of dried vine fruits 50 cents per tonne and in the case of dried tree fruits $2.50 per tonne.

FEDERAL PRIMARY PRODUCTION TAXES AND CHARGES RECEIPTS
($'000)

Source of revenue	*1972–73*	*1973–74*	*1974–75*	*1975–76*	*1976–77*
Apple and pear export charge	431	347	352	271	121
Apple and pear levy	. .	. .	. .	. .	159
Butterfat levy	1,731	1,673	1,604	1,549	85
Canned fruit export charge	387	292	176	153	195
Canning fruit charge	136	183	108	113	107
Dairy research levy	490	512	501	506	3,077
Dried fruits export charge	309	87	105	197	197
Dried fruits levy	70	44	42	45	49
Dried vine fruits levy	. .	. .	155	. .	. .
Egg export charge	4	4	2	. .	. .
Honey export charge	. .	. .	. .	. .	22
Honey levy	120	129	190	181	158
Livestock slaughter levy—					
Cattle	3,194	2,848	3,289	4,786	5,389
Pigs	232	215	175	313	360
Sheep and lambs	1,637	908	1,086	1,491	1,546
Eradication of disease	. .	. .	. .	. .	8,562
Meat export charge—					
Cattle meat	. .	5,669	14,858	16,478	69
Other meat	. .	967	2,259	3,266	6
Chicken meat levy	118	146	139	154	160
Poultry industry levy	12,978	11,612	12,872	11,390	11,414
Tobacco charge	510	535	505	547	496
Wheat export charge	. .	9,843	38,678	. .	30,065
Wheat tax	639	1,104	1,180	1,684	1,641
Wine grapes charges	689	792	864	1,103	1,035
Wool tax	11,171	26,531	64,288	71,368	94,093
Total	**34,846**	**64,441**	**143,428**	**115,594**	**159,006**

Pay-roll tax

Federal pay-roll tax came into operation on 2 May 1941 and provided for the imposition of a tax on wages paid or payable in respect of any period of time occurring after 30 June 1941. The tax was payable by employers on all wages and salaries paid or payable in excess of a general exemption. The rate of tax, 2.5 per cent, was not changed after its inception, but the general exemption was increased over the years from $173.33 to $1,733.33 per month ($2,080 per annum to $20,800 per annum).

From 1 September 1971, in accordance with an agreement between the Commonwealth Government and the States following the June 1971 Premiers' Conference, the Commonwealth Government vacated the pay-roll tax field in favour of the States. It continued, however, to impose pay-roll tax in the Australian Capital Territory and the Northern Territory. The laws relating to pay-roll tax in the Territories are the *Pay-roll Tax (Territories) Assessment Act* 1971 and the *Pay-roll Tax (Territories) Act* 1971.

From 1 December 1974 the rate of tax payable in the Territories has been 5 per cent with a statutory exemption of wages up to $1,733.33 per month ($20,800 per annum) or a proportion of that amount in the case of an employer who is an employer also in a State.

The *Pay-roll Tax (Territories) Assessment Act* 1976 raised the level of the general exemption from pay-roll tax in the Territories from $20,800 to $48,000 per annum with effect from 1 January 1977.

On vacating the pay-roll tax field in favour of the States the Commonwealth Government introduced an export incentive grant scheme to provide grants in respect of the 1971–72 and 1972–73 financial years equal to the rebates which would have been payable for those years if the pay-roll tax rebate scheme which had operated from the 1960–61 financial year had continued in operation until it expired on 30 June 1974. The export incentive grant scheme has now been replaced by a new system of export incentive grants administered by the Department of Trade and Resources.

Gross collections of pay-roll tax in 1975–76 and 1976–77 amounted to $19,685,545 and $21,297,503 respectively. Refunds of pay-roll tax during 1975–76 and 1976–77 under the pay-roll tax rebate scheme amounted to $920,786 and $3,403, respectively. For details of the pay-roll tax rebate scheme, see Year Book No. 57, page 553.

Stevedoring Industry Charge

The rates in operation from 13 February 1976 have been as follows:

Class of Waterside Worker	*Rate*
	$
A	4.00 per man-hour
B	4.75 per man-hour
C	2.85 per man-hour

Class A waterside workers are permanent waterside workers in permanent and continuous ports; Class B are regular casual waterside workers in continuous ports; and Class C are regular casual waterside workers in non-continuous and seasonal ports and irregular workers in all ports.

From 5 December 1977 the Stevedoring Industry Charge was replaced by a stevedoring industry levy which is based on man-hours and tonnage handled.

Gross operating surplus of public enterprises

The *gross operating surplus* of public *trading* enterprises is the excess over working expenses of total revenue from charges before providing for capital consumption and other costs of capital (i.e. interest, debt redemption). *Financial* enterprises do not charge directly, at least not in full, for the services they render; that expenditure is largely financed by net receipts of interest and other transfer income. By convention, the output of these enterprises is valued at cost, so that no operating surplus is recorded in their production accounts. The profits of these enterprises are attributable to their property income. *Income* (including depreciation) of public financial enterprises is therefore arrived at after deducting interest paid and working expenses (i.e. net current expenditure on goods and services) from total receipts of interest and non-dwelling rent.

In the following table the revenue, working expenses and gross operating surplus of public trading enterprises are shown; public financial enterprises are reflected simply on the basis of their income (including depreciation). Further information relating to the more important of these enterprises may be found in the chapters dealing with banking, housing, railways, electric power generation, etc.

FEDERAL AUTHORITIES; PUBLIC TRADING ENTERPRISES; REVENUE, WORKING EXPENSES AND GROSS OPERATING SURPLUS, CLASSIFIED BY INDUSTRY

($ million)

Industry	*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*
REVENUE					
Manufacturing	21.8	23.4	28.5	34.0	48.9
Electricity	52.1	61.1	66.8	76.0	84.1
Water supply, sewerage and drainage	3.4	4.3	5.0	5.0	7.6
Transport and communication—					
Air transport	333.7	391.1	483.3	592.5	704.7
Rail transport	29.2	31.2	37.2	41.4	108.2
Sea transport	79.4	93.0	113.4	145.4	204.2
Urban transit systems	7.6	7.7	8.9	9.3	14.0
Communication	901.3	983.3	1,162.7	1,444.0	2,004.8
Total	*1,351.1*	*1,506.3*	*1,805.6*	*2,232.6*	*3,035.8*
Commerce	102.0	64.5	52.2	43.4	208.3
Property and business services—					
Housing	16.9	15.8	20.8	21.9	22.8
Other	8.1	9.1	11.8	18.7	25.5
Total	*25.1*	*24.9*	*32.7*	*40.8*	*48.3*
Community, social and personal services	10.0	10.4	11.9	16.9	22.7
Total revenue	1,565.4	1,695.0	2,000.8	2,448.4	3,455.
WORKING EXPENSES(*a*)					
Manufacturing	21.2	21.9	28.5	35.0	46.9
Electricity	13.0	14.3	18.6	29.3	37.3
Water supply, sewerage and drainage	2.3	2.6	3.1	3.9	4.9
Transport and communication—					
Air transport	290.1	329.6	413.3	550.7	647.6
Rail transport	26.7	29.2	38.8	50.6	154.3
Sea transport	68.7	75.1	95.5	136.8	184.6
Urban transit systems	6.6	7.0	9.8	12.3	16.7
Communication	540.2	608.5	778.0	986.1	1,215.8
Total	*932.3*	*1,049.4*	*1,335.3*	*1,736.4*	*2,218.9*
Commerce	107.0	69.3	54.1	68.6	246.7
Property and business services—					
Housing	15.5	14.1	19.8	23.9	25.7
Other	7.7	8.4	11.0	18.2	24.3
Total	*23.2*	*22.5*	*30.8*	*42.1*	*50.0*
Community, social and personal services	7.1	7.8	9.1	14.1	19.6
Total working expenses	1,106.1	1,187.9	1,479.6	1,929.3	2,624.3
GROSS OPERATING SURPLUS					
Manufacturing	0.6	1.5	−0.1	−1.0	2.0
Electricity	39.1	46.8	48.2	46.7	46.8
Water supply, sewerage and drainage	1.0	1.7	1.9	1.1	2.6
Transport and communication—					
Air transport	43.5	61.5	70.0	41.8	57.1
Rail transport	2.5	2.1	−1.6	−9.2	−46.1
Sea transport	10.7	17.9	18.0	8.6	19.6
Urban transit systems	1.0	0.7	−0.8	−3.0	−2.7
Communication	361.0	374.8	384.7	458.0	789.0
Total	*418.7*	*456.9*	*470.3*	*496.2*	*817.0*
Commerce	−4.9	−4.9	−1.9	−25.1	−38.4
Property and business services—					
Housing	1.4	1.7	1.0	−2.1	−2.2
Other	0.5	0.7	0.7	0.5	1.7
Total	*1.9*	*2.5*	*1.7*	*−1.6*	*−1.9*
Community, social and personal services	2.8	2.6	2.8	2.9	3.1
Total gross operating surplus	459.3	507.0	522.9	519.2	831.3

(*a*) Excludes depreciation and interest charges.

STATE AUTHORITIES

The State authorities dealt with in this section include the central government of each State, statutory bodies created by or under State legislation to carry out activities on behalf of the central government, and incorporated organisations in which individual State governments have a controlling interest.

The transactions of many of the State authorities are itemised in State Consolidated Revenue Funds or in Trust Funds, so that a satisfactory coverage of their transactions can be obtained from a detailed analysis and reclassification of the published accounts whose receipts and payments are summarised in the statement of Treasury balances for each State. The remaining statutory bodies and other publicly owned or controlled organisations maintain accounts entirely, or largely, separate from the public accounts, although there may be transactions between them and State governments (such as advances and capital contributions, interest and dividends, and votes for running expenses and capital works) which would affect the public accounts. The accounting reports of this group of organisations have to be collected and analysed in order to present a complete statement of the transactions of State authorities—or at least methods of analysis need to be adopted which adequately reflect their transactions so that they are, in principle, covered by the statistics.

In the figures which follow in this section, all expenditure by State central government authorities on certain institutions, whether direct (e.g. new building charged to Loan Fund) or indirect by way of current or capital grants to the bodies administering them, has been treated as final expenditure on goods and services by State authorities; fees and gifts from persons or private businesses to these institutions are not included, nor is the expenditure of the institutions from their own resources. Universities and hospitals are particular examples of organisations for which this practice has been adopted.

Many of these State authorities have been granted autonomy by State legislatures to the extent that they are largely financially independent. Some of these are funded from earmarked tax revenues and are vested with independent borrowing powers. A considerable number of others belong to the category of public enterprises, since they are able to charge for their services so as to cover their costs of operation. These bodies have usually been created to control a specific activity or provide a specific service within a State. It is often the case that in other States similar activities are carried out, or services are provided, by central government or local authorities. Details of the activities of autonomous or semi-autonomous State authorities engaged in such fields as construction and maintenance of roads and bridges, provision of water supply and sewerage services, harbour facilities, transport, electricity and gas, housing and banking may be found in chapters relevant to those subjects.

Details of the transactions of State authorities are given in the tables which follow. Reference should be made to the introduction of *Public Authority Finance, State and Local Authorities*, 1975–76, (5504.0) for definitions and descriptions of items appearing in these tables, and also for further details of the organisations covered by the figures. Additional information relating to the activities of the State authorities may also be found in the Year Books of the individual States.

Receipts and outlay

The receipts and outlay of State authorities for the five year period ended 1975-76 are given in the following table.

STATE AUTHORITIES(*a*): RECEIPTS AND OUTLAY

($ million)

	1971-72	*1972-73*	*1973-74*	*1974-75*	*1975-76*
OUTLAY					
Final consumption expenditure	2,382.7	2,816.5	3,611.9	5,201.9	6,738.6
Gross capital formation—					
Increase in stocks	8.3	1.6	15.9	54.9	30.5
Expenditure on new fixed assets	1,879.3	2,013.3	2,276.9	3,318.2	3,882.0
Expenditure on existing assets (net)	121.0	88.0	181.9	240.1	222.9
Total gross capital formation	*2,008.6*	*2,103.0*	*2,474.6*	*3,613.3*	*4,135.4*
Transfer payments—					
Interest	819.4	879.1	938.0	1,038.4	1,176.4
Transfers to persons	135.6	173.5	187.9	219.0	268.5
Subsidies	30.4	30.0	32.6	41.1	44.8
Transfers overseas	..	..	..	0.1	0.1
Grants for private capital purposes	24.9	31.1	43.4	68.9	78.6
Grants to local authorities	108.6	153.3	133.1	253.6	310.8
Total transfer payments	*1,118.9*	*1,267.0*	*1,335.0*	*1,621.1*	*1,879.1*
Net advances—					
To the private sector	90.2	57.0	41.7	150.0	168.1
To public financial enterprises	37.9	47.8	56.0	79.8	81.5
To local authorities	1.6	2.8	6.0	17.3	22.8
Total net advances	*129.7*	*107.6*	*103.7*	*247.2*	*272.4*
Total outlay	**5,639.9**	**6,294.1**	**7,525.1**	**10,683.5**	**13,025.4**
of which—					
current outlay	3,501.6	4,083.5	4,946.9	6,823.0	8,617.7
capital outlay	2,138.3	2,210.6	2,578.3	3,860.5	4,407.8
RECEIPTS AND FINANCING ITEMS					
Receipts—					
Taxes, fees, fines, etc.	1,413.6	1,779.3	2,204.8	2,790.5	3,466.9
Income from public enterprises	409.2	365.5	291.5	200.5	318.3
Interest, etc., received	221.3	246.2	307.2	409.9	424.7
Grants from the Commonwealth Government—					
for current purposes	1,768.8	2,075.9	2,533.4	3,735.0	5,427.7
for capital purposes	625.8	706.2	898.6	1,409.7	1,556.6
Total receipts	*4,438.8*	*5,173.1*	*6,235.5*	*8,545.6*	*11,194.1*
Financing items—					
Net borrowing—					
Public corporation securities	337.1	300.0	335.7	401.1	545.8
Other general government securities	55.1	43.2	62.9	73.6	115.6
Advances from the Commonwealth Government (net)—					
For loan works purposes	549.6	601.3	447.9	592.1	708.7
Other	40.5	66.3	300.6	632.8	663.8
Net receipts of private trust funds	66.1	93.1	102.0	153.8	31.6
Reduction in cash and bank balances	−94.8	−230.7	−258.4	−39.7	−718.1
Reduction in security holdings	−41.2	−71.7	−89.0	−41.4	9.0
Other funds available (including errors and omissions)—					
Depreciation allowances	255.7	272.0	292.7	274.9	314.2
Other	33.0	47.5	95.4	90.7	160.7
Total financing items	*1,201.2*	*1,121.0*	*1,289.7*	*2,137.9*	*1,831.3*
Total funds available	**5,639.9**	**6,294.1**	**7,525.1**	**10,683.5**	**13,025.4**

(*a*) Excludes financial enterprises.

The following table provides details of the receipts and outlay of State authorities in each of the six States.

STATE AUTHORITIES(*a*): RECEIPTS AND OUTLAY, BY STATE, 1975–76

(\$ million)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
OUTLAY							
Final consumption expenditure	2,316.1	1,812.1	963.3	675.4	702.3	269.4	6,738.6
Gross capital formation—							
Increase in stocks	10.3	4.6	7.0	1.4	6.3	0.9	30.5
Expenditure on new fixed assets	1,329 9	1,023.1	578.7	399.3	382.5	168.5	3,882 0
Expenditure on existing assets (net)	81.8	103.1	2.9	30.9	3.9	0.4	222.9
Total gross capital formation	*1,421.9*	*1,130.8*	*588.5*	*431.6*	*392.7*	*169.8*	*4,135.4*
Transfer payments—							
Interest	339 8	373.7	166.7	128 8	106.1	61.3	1,176.4
Transfers to persons	116.7	62.7	47.5	15.6	18.5	7.5	268.5
Subsidies	22.0	11.0	5.2	1.3	3.1	2.2	44.8
Transfers overseas	. .	0.1	. .	. .	. .	. .	0.1
Grants for private capital purposes	36.0	18.7	7.9	11.8	3.4	0.8	78.6
Grants to local authorities	94.4	86.8	71.3	25.2	27.1	6.0	310.8
Total transfer payments	*608.8*	*553.0*	*298.7*	*182.6*	*158.2*	*77.8*	*1,879.1*
Net advances—							
To the private sector	8.8	86.3	37.1	8.5	19.9	7.4	168.1
To public financial enterprises	39.1	5.8	. .	36.6	. .	. .	81.5
To local authorities	6.6	0.6	16.1	−0.4	−0.2	0.1	22.8
Total net advances	*54.5*	*92.7*	*53.2*	*44.8*	*19.8*	*7.5*	*272.4*
Total outlay	**4,401.3**	**3,588.6**	**1,903.7**	**1,334.4**	**1,272.9**	**524.4**	**13,025.4**
of which—							
current outlay	2,924.9	2,365.1	1,262 0	858.0	860.5	347.2	8,617.7
capital outlay	1,476.4	1,223.5	641.7	476.4	412.5	177.3	4,407.8
RECEIPTS AND FINANCING ITEMS							
Receipts—							
Taxes, fees, fines, etc.	1,397.1	1,037.7	396.6	296.5	260.7	78.4	3,466.9
Income from public enterprises	51.0	108.3	29.7	53.9	50.7	24.6	318 3
Interest, etc., received	111.6	98.6	85.7	43.5	68.5	16.8	424.7
Grants from the Australian Government—							
for current purposes	1,761.8	1,359.6	872.6	600.9	595.4	237.3	5,427.7
for capital purposes	490.7	383.2	259.9	163.2	167.8	91.7	1,556.6
Total receipts	*3,812.2*	*2,987.4*	*1,644.6*	*1,158.0*	*1,143.0*	*448.8*	*11,194.1*
Financing items—							
Net borrowing—							
Public corporation securities	197.9	245.4	20.1	28.6	36.6	17.3	545.8
Other general government securities	26.0	2.8	74.6	7.0	4.8	0.6	115.6
Advances from the Australian Government(net)—							
For loan works purposes	222.6	181.2	95.1	92.8	65.4	51.6	708.7
Other	228.0	174.0	94.6	93.7	51.0	22.3	663.8
Net receipts of private trust funds	16.2	−80.7	63.7	6.4	18.7	7.3	31.6
Reduction in cash and bank balances	−262.8	−97.9	−139.6	−81.8	−111.0	−25.1	−718 1
Reduction in security holdings	−6.6	41.3	−6.6	0.9	−17.4	−2.7	9.0
Other funds available (including errors and omissions)—							
Depreciation allowances	129.5	86.7	33.9	25.1	32 2	6.7	314 2
Other	38.3	48.5	23.4	3.8	49.5	−2.5	160.7
Total financing items	*589.1*	*601.3*	*259.2*	*176.4*	*129.9*	*75.6*	*1,831.3*
Total funds available	**4,401.3**	**3,588.6**	**1,903.7**	**1,334.4**	**1,272.9**	**524.4**	**13,025.4**

(*a*) Excludes financial enterprises.

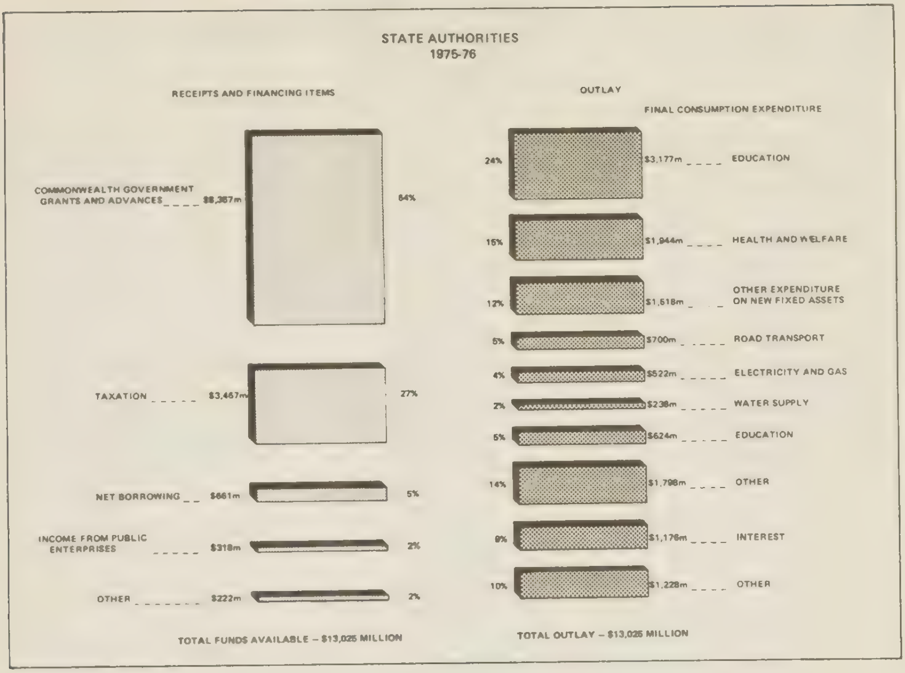


PLATE 43

Main components of outlay

The main component of the outlay of State authorities is expenditure on goods and services. As in the case of authorities of the Commonwealth Government, this expenditure consists mainly of final consumption expenditure, and expenditure on new fixed assets. The following tables show final consumption expenditure and expenditure on new fixed assets classified by purpose for State Authorities.

STATE AUTHORITIES: FINAL CONSUMPTION EXPENDITURE CLASSIFIED BY PURPOSE
($ million)

Purpose	*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*
General public services—					
Law, order and public safety	277.5	322.6	397.0	546.8	664.4
General administration, n.e.c.	173.9	199.2	224.1	315.7	382.4
Education	1,143.8	1,361.8	1,775.3	2,568.9	3,176.7
Health	499.1	580.2	790.4	1,202.5	1,823.0
Social security and welfare	47.6	57.5	66.7	98.6	121.2
Housing and community amenities—					
Housing	1.6	1.7	2.1	2.9	3.7
Community and regional development	5.2	7.0	9.2	16.1	20.0
Protection of the environment, and community amenities	1.4	4.0	6.8	12.1	17.6
Recreation and culture	27.0	34.4	42.1	58.4	79.1
Economic services—					
Agriculture, forestry, fishing	125.5	154.1	181.6	229.4	268.2
Mining, manufacturing and construction	21.2	26.2	28.8	37.3	45.5
Electricity, gas and water supply	0.2	1.8	1.1	4.3	4.6
Rail transport(*a*)	1.4	2.2	..	1.1	1.1
Sea transport	2.3	0.9	5.7	6.9	8.6
Road systems and regulation	13.3	16.0	19.9	14.2	15.2
Other transport services, n.e.c.	1.1	1.2	1.7	2.1	3.4
Other economic services(*b*)	40.0	45.0	58.7	83.6	103.5
Other purposes	0.7	0.7	0.8	0.9	0.4
Total	**2,382.7**	**2,816.5**	**3,611.9**	**5,201.9**	**6,738.6**

(*a*) Includes suburban rail transport systems. (*b*) Includes general administration, regulation and research.

STATE AUTHORITIES: FINAL CONSUMPTION EXPENDITURE CLASSIFIED BY PURPOSE 1975-76

($ million)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
General public services—							
Law, order and public saftey	246.8	148.1	114.1	59.1	69.8	26.4	664.4
General administration, n.e.c.	168.9	67.9	48.9	34.3	36.4	26.0	382 4
Education	1,074.9	940.2	417.1	337.2	298.7	108.5	3,176.7
Health	632.1	484.7	246.6	177.7	214.9	66.9	1,823 0
Social security and welfare	36.2	30.8	26.5	12.4	12.5	2.8	121.2
Housing and community amenities—							
Housing	1.0	0.7	−0.4	1.0	0.9	0.4	3.7
Community and regional development	6.9	8.1	..	2.6	2.0	0.3	20.0
Protection of the environment, and community amenities	3.8	8.1	2.1	1.8	0.8	1.0	17.6
Recreation and culture	21.7	19.3	9.8	11.2	9.4	7.6	79.1
Economic services—							
Agriculture, forestry, fishing	80.4	56.8	72.2	16.3	23.6	18.9	268.2
Mining, manufacturing and construction	15.5	4.4	6.9	6.2	10.4	2.3	45.5
Electricity, gas and water supply	1.3	0.6	−2.2	0.1	4.2	0.5	4.6
Rail transport(*a*)	..	0.4	−0.1	−0.2	0.9	0.1	1.1
Sea transport	5.0	..	2.9	0.8	..	..	8.6
Road systems and regulation	1.6	7.4	3.0	1.6	1.0	0.6	15.2
Other transport services, n.e.c.	1.4	0.9	0.5	0.1	0.4	0.1	3.4
Other economic services(*b*)	18.6	33.7	15.2	12.8	16.3	6.8	103.5
Other purposes	..	..	..	0.3	..	..	0.4
Total	**2,316.1**	**1,812.1**	**963.3**	**675.4**	**702.3**	**269.4**	**6,738.6**

(*a*) Includes suburban rail transport systems. (*b*) Includes general administration, regulation and research.

STATE AUTHORITIES: EXPENDITURE ON NEW FIXED ASSETS CLASSIFIED BY PURPOSE

($ million)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
General public services—					
Law, order and public safety	27.2	34.7	39.1	46.7	61.6
General administration, n.e.c.	22.7	28.5	39.2	62.0	87.3
Education	262.7	297.5	349.3	609.3	623.7
Health	93.5	97.4	123.8	202.8	320.9
Social security and welfare	6.2	6.0	8.1	8.3	8.6
Housing and community amenities—					
Housing	71.9	71.7	110.9	270.2	239.7
Community and regional development	1.9	1.4	2.4	8.4	23.8
Protection of the environment, and community amenities	167.3	204.0	236.6	298.1	336.9
Recreation and culture	25.3	30.2	20.8	18.6	24.7
Economic services—					
Agriculture, forestry, fishing	103.8	102.5	108.8	147.0	175.0
Mining, manufacturing and construction	26.7	29.1	42.0	58.4	60.8
Electricity and gas	313.6	317.2	338.9	436.4	521.6
Water supply	121.1	141.1	153.3	198.8	237.9
Rail transport(*a*)	139.0	139.4	138.7	217.9	275 8
Sea transport	72.8	60.9	62.9	76.3	88 9
Road systems and regulation	394.9	419.9	461.7	587.3	699.8
Other transport services, n.e.c.	11.5	8.2	6.5	18.8	29.7
Other economic services(*b*)	42.4	47.7	58.4	114.1	97.8
Other purposes	0.9	0.7	2.8	2.1	1.1
Total	**1,905.3**	**2,037.9**	**2,304.4**	**3,381.4**	**3,915.6**
of which—					
Public financial enterprises	26.0	24.6	27.5	63.2	33.7

(*a*) Includes suburban rail transport systems. (*b*) Includes general administration, regulation and research.

STATE AUTHORITIES: EXPENDITURE ON NEW FIXED ASSETS CLASSIFIED BY PURPOSE 1975-76

($ million)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
General public services—							
Law, order and public safety	14.8	14.0	17.3	5.0	4.8	5.7	61.6
General administration, n.e.c.	23.1	11.0	18.2	22.6	8.6	3.9	87.3
Education	227.8	169.3	74.1	66.7	53.4	32.5	623.7
Health	103.2	72.6	47.0	44.3	44.1	9.6	320.9
Social security and welfare	2.3	1.3	1.5	1.9	1.6	0.1	8.6
Housing and community amenities—							
Housing	106.0	29.1	34.1	34.3	17.9	18.2	239.7
Community and regional development	12.3	8.2	..	1.6	1.7	..	23.8
Protection of the environment, and community amenities	149.2	129.3	4.6	17.2	36.5	..	336.9
Recreation and culture	4.3	11.9	0.6	5.7	1.4	0.9	24.7
Economic services—							
Agriculture, forestry, fishing	53.4	50.3	36.0	15.6	12.7	6.8	175.0
Mining, manufacturing and construction	15.2	12.5	20.3	12.3	0.3	0.2	60.8
Electricity and gas	118.4	169.8	114.8	33.6	46.6	38.4	521.6
Water supply	85.0	74.2	2.6	40.4	34.3	1.4	237.9
Rail transport(*a*)	105.0	72.4	65.2	9.9	23.3	0.1	275.8
Sea transport	23.9	20.2	9.7	8.2	20.3	6.5	88.9
Road systems and regulation	242.5	155.4	128.8	64.7	68.4	39.9	699.8
Other transport services, n.e.c.	1.3	9.7	..	13.0	2.2	3.3	29.7
Other economic services(*b*)	50.1	23.5	9.4	4.1	8.3	2.5	97.8
Other purposes	1.1	..	..	..	..	..	1.1
Total	1,339.0	1,034.8	584.3	401.3	386.5	169.9	3,915.6
of which—							
Public financial enterprises	9.1	11.7	5.6	2.0	4.0	1.4	33.7

(*a*) Includes suburban rail transport systems. (*b*) Includes general administration, regulation and research.

Main components of receipts

The major source of funds available to State authorities is in the form of financial assistance by way of grants and advances from the Commonwealth Government. Taxation is also an important source of revenue, and central government borrowing by way of Commonwealth Government securities issued on behalf of the States, as well as borrowing by statutory bodies, accounted for a significant proportion of the total funds available, in marked contrast to the relatively minor role played by borrowing in financing the activities of the Commonwealth Government authorities.

Details of Commonwealth Government financial assistance to the States have already been given in the section dealing with Commonwealth Government authorities, and government borrowing activities are dealt with later in this chapter.

The following tables provide details of the taxes collected by State authorities classified by type of tax. Further information relating to State taxes may be found in *Public Authority Finance; Taxation, 1975–76* (5506.0).

STATE AUTHORITIES: TAXATION BY TYPE OF TAX
($ million)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Estate, gift, probate and succession duties	144.6	163.3	185.6	198.1	226.9
Property taxes—					
Land tax	102.8	112.9	122.1	168.6	200.1
Metropolitan improvement rates	9.4	9.6	12.2	12.8	15.1
Other	0.7	1.1	1.6	1.7	1.7
Total property	*112.9*	*123.6*	*135.9*	*183.1*	*216.9*
Liquor taxes	48.0	52.1	57.5	75.6	95.8
Taxes on gambling—					
Lotteries	34.9	37.6	48.3	68.8	83.0
Poker machines	38.3	42.6	50.8	71.9	83.4
Racing	75.9	91.4	107.5	138.5	164.8
Other	..	0.5	1.6	3.3	14.3
Total gambling	*149.1*	*172.0*	*208.2*	*282.5*	*345.4*
Taxes on ownership and operation of motor vehicles—					
Vehicle registration fees and taxes	189.9	223.6	240.2	284.1	334.3
Drivers', etc., licences and fees	25.1	27.8	29.2	43.1	54.3
Stamp duty on vehicle registration	24.3	30.9	39.7	51.5	84.2
Road transport taxes	17.1	17.6	17.2	15.2	15.6
Road maintenance contributions	38.8	40.0	43.0	44.1	44.2
Motor car third party insurance surcharge and duties	5.9	6.9	7.4	9.8	12.5
Total motor vehicles	*301.2*	*346.7*	*376.7*	*447.7*	*545.0*
Pay-roll tax	304.6	449.2	666.9	998.6	1,162.5
Fire brigades contributions from insurance companies, etc.	33.6	38.7	46.4	66.0	85.2
Stamp duties, n.e.i.	249.6	351.1	430.9	389.3	550.9
Fees from regulatory services, n.e.i.	13.4	16.2	19.6	24.4	32.5
Other taxes, fees, fines, etc.	56.6	66.4	77.1	125.3	206.0
Total taxation	**1,413.6**	**1,779.3**	**22,04.8**	**2,790.5**	**3,466.9**

STATE AUTHORITIES: TAXATION BY TYPE OF TAX, 1975-76
($ million)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
Estate, gift, probate and succession duties	90.4	71.4	27.6	20.5	11.7	5.5	226.9
Property taxes—							
Land tax	99.2	56.1	8.8	19.5	12.1	4.3	200.1
Metropolitan improvement rates	..	13.4	..	..	1.7	..	15.1
Other	0.5	..	..	1.2	..	..	1.7
Total property	*99.7*	*69.5*	*8.8*	*20.8*	*13.8*	*4.3*	*216.9*
Liquor taxes	38.2	24.8	13.5	7.4	9.0	2.8	95.8
Taxes on gambling—							
Lotteries	27.3	37.0	7.8	5.4	5.5	..	83.0
Poker machines	83.4	..	..	..	..	..	83.4
Racing	62.8	56.6	21.8	9.9	11.2	2.5	164.8
Other	5.2	6.8	0.2	..	..	2.1	14.3
Total gambling	*178.8*	*100.3*	*29.8*	*15.3*	*16.7*	*4.6*	*345.4*
Taxes on ownership and operation of motor vehicles—							
Vehicle registration fees and taxes	122.8	92.5	48.2	28.7	32.2	9.9	334.3
Drivers' etc., licences and fees	25.5	14.9	4.3	3.4	4.8	1.3	54.3
Stamp duty on vehicle registration	24.7	31.5	8.1	12.8	4.4	2.7	84.2
Road transport taxes	1.0	5.9	6.3	0.1	1.7	0.6	15.6
Road maintenance contributions	20.3	10.1	5.1	4.2	4.5	..	44.2
Motor car third party insurance surcharge and duties	..	7.3	..	1.8	2.9	0.4	12.5
Total motor vehicles	*194.3*	*162.2*	*72.0*	*51.1*	*50.5*	*15.0*	*545.0*
Pay-roll tax	463.2	336.3	140.7	100.5	91.9	29.9	1,162.5
Fire brigades contributions from insurance companies, etc.	23.9	25.5	17.9	6.1	9.3	2.5	85.2
Stamp duties, n.e.i.	191.5	192.7	64.1	51.9	39.9	10.7	550.9
Fees from regulatory services, n.e.i.	13.8	9.3	3.3	2.9	2.7	0.5	32.5
Other taxes, fees, fines, etc.	103.4	45.6	18.9	20.1	15.3	2.6	206.0
Total taxation	1,397.1	1,037.7	396.6	296.5	260.7	78.4	3,466 9

LOCAL AUTHORITIES

In each State of Australia there exists a system of local government whose powers and responsibilities are generally similar and cover such matters as the construction and maintenance of roads, streets and bridges; water, sewerage and drainage systems; health and sanitary services; the supervision of building; and the administration of regulations relating to items such as weights and measures, slaughtering, the registration of dogs, etc. In addition to these obligatory functions, there are also many which may be performed by a local authority either with or without the consent of the ratepayers or the Governor-in-Council. These include transport facilities, electricity, gas and other business undertakings, hospitals, charitable institutions, recreation grounds, parks, swimming baths, libraries, museums, etc.

The system is based on the principle of a grant of specific powers by the State legislatures to the local authorities, their autonomy, however, being more or less limited by the provision for general supervision by a department of the central government or by the Governor-in-Council. Otherwise, within the scope of the Acts under which they are constituted or which they have to administer, they are responsible only to the ratepayers. While the broad pattern of local government throughout the States of Australia is similar, the range of activities, election of officers, methods of valuation and rating powers, etc. vary considerably from State to State, and even within States.

The areas over which local government bodies, numbering almost 900, exercise general control, are known in New South Wales as cities, municipalities and shires; in Victoria as cities, towns, boroughs and shires; in Queensland as cities, towns and shires; in South Australia as cities, corporate towns and district council areas; in Western Australia as cities, towns and shires; and in Tasmania as cities and municipalities. In New South Wales some local authorities in an area have combined to provide services such as electricity, water, sewerage and drainage—e.g. the county councils. Within shires there are also some municipal units known as urban areas. Apart from the more thinly populated parts of New South Wales and South Australia and the Australian Territories (except for the City of Darwin and Alice Springs), practically the whole of Australia comes within local government jurisdiction. For further details *see* State Year Books.

Area, population, dwellings, and value of rateable property

The area, population, dwellings, and the value of rateable property in the incorporated areas of each State are shown in the following table. The valuations relate to rateable property only and exclude government and other non-rateable property whose value in the aggregate is considerable. In various cases councils rate on annual value, or unimproved capital value, or improved capital value, or partly on each of these bases of valuation. The amounts stated are the totals for the areas rated according to each basis of valuation. Particulars of dwellings are in accordance with the definition used in the Census, and are compiled from information collected on the Census schedules. For the purpose of the Census a dwelling was defined as any habitation occupied by a household group living together as a domestic unit, whether comprising the whole or only part of a building. The term has, therefore, a very wide reference and includes, in addition to houses and flats, a great variety of dwellings ranging from a single-roomed shack to a multi-roomed hotel or institution. Unoccupied dwellings include vacant dwellings available for sale and renting, 'week-end' and holiday dwellings, and other dwellings temporarily unoccupied on the night of the Census. Dwellings being built are not included.

In the following table particulars of number, area, and value of rateable property refer to estimates made, where practicable, for the capital city statistical division and outside this division. Wherever the statistical boundary cuts across a local government area, the estimates have involved either the inclusion or exclusion of the whole of the local government authority concerned in, or from, the capital city statistical division. Particulars of population refer to estimates made for capital city statistical division and outside this division in accordance with the definition of boundaries used in the Census and exclude migratory population and population in unincorporated areas.

LOCAL GOVERNMENT AUTHORITIES: AREA, POPULATION, DWELLINGS, AND VALUE OF RATEABLE PROPERTY, STATES

					Value of rateable property		
Location	*Number*	*Area*	*Population*	*Dwellings*	*Unimproved capital value*	*Improved capital value*	*Annual value*
		'000 hectares	*'000*	*No.*	*$'000*	*$'000*	*$'000*
New South Wales(*a*)—							
Sydney Statistical Division	40	394	(*c*)2,900	(*d*)1,063,472	19,859,067*p*	n.a.	n.a.
Other(*b*)	174	70,172	(*c*)1,883	(*d*)589,249	5,813,658*p*	n.a.	n.a.
Total New South Wales	*214*	*70,565*	*(c)4,783*	*(d)1,652,721*	*25,672,725p*	*n.a.*	*n.a.*
Victoria(*e*)—							
Melbourne Statistical Division	56	780	2,677	868,642	n.a.	15,631,918	886,171
Other(*f*)	155	21,930	992	331,070	n.a.	6,815,156	349,055
Total Victoria	*211*	*22,710*	*3,669*	*1,199,712*	*n.a.*	*22,447,074*	*1,235,226*
Queensland(*g*)—							
Brisbane Statistical Division	9	1,008	986	314,753	1,320,339	n.a.	n.a.
Other	122	171,671	1,123	350,686	1,316,709	n.a.	n.a.
Total Queensland	*131*	*172,679*	*2,109*	*665,439*	*2,637,048*	*n.a.*	*n.a.*
South Australia(*h*) —							
Adelaide Statistical Division	31	185	899	298,776	n.a.	n.a.	n.a.
Other	106	98,252	335	115,582	n.a.	n.a.	n.a.
Total South Australia	*137*	*98.438*	*1,234*	*414,358*	*439,120*	*n.a.*	*252,041*
Western Australia(*i*)—							
Perth Statistical Division	26	537	806	266,210	1,406,702	n.a.	87,227
Other	112	252,267	336	104,731	451,074	n.a.	23,336
Total Western Australia	*138*	*(j)252,550*	*1,142*	*370,941*	*1,857,776*	*n.a.*	*110,563*
Tasmania—							
Hobart Statistical Division	5	94	163	54,591	332,307	1,123,148	76,103
Other	44	6,739	245	83,953	363,951	1,447,000	89,369
Total Tasmania	*49*	*6,833*	*(k)407*	*(k)138,544*	*(l)696,258*	*(l)2,570,148*	*(l)165,472*

(*a*) Based on year ended 31 December 1976. (*b*) Excludes Lord Howe Island, unincorporated areas and migratory population. (*c*) As at 30 June 1975. (*d*) As at 30 June 1976; from Census 30 June 1977 (preliminary) (*e*) Based on years ended 30 September 1975. (*f*) Excludes Yallourn Works Area, under the jurisdiction of the State Electricity Commission, and other unincorporated areas. (*g*) Year ended 30 June 1974. Total population less migratory and unincorporated. (*h*) Year ended 30 June 1975. (*i*) Year ended 30 June 1976. Excludes unincorporated areas, and migratory population. (*j*) Area as determined in 1973 by the Division of National Mapping, Department of Minerals and energy. (*k*) As at 30 June 1975. (*l*) As at 1 July 1974.

Receipts, financing items and outlay

The following tables show details of the receipts, financing items and outlay of all local authorities for the years 1971–72 to 1975–76, and of local authorities in each of the six States in 1975–76. Figures shown for 1975–76 are based on limited data, but may be taken as rough indicators of orders of magnitude.

LOCAL AUTHORITIES: RECEIPTS AND OUTLAY
($ million)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
OUTLAY					
Final consumption expenditure—					
General public services	90.8	97.9	121.0	157.8	191.3
Education	1.6	2.0	2.9	4.6	6.6
Health	19.2	22.8	26.6	32.6	38.5
Social security and welfare	4.0	4.8	7.0	10.2	13.8
Housing and community amenities—					
Community and regional development	3.1	3.7	6.4	10.0	11.8
Protection of the environment	16.3	21.1	28.1	39.9	46.1
Other	2.8	4.0	5.1	7.4	8.5
Recreation and culture	58.8	71.9	78.1	115.1	157.6
Economic services	18.9	21.3	27.3	38.8	47.7
Other purposes	0.2	0.3	0.4	1.0	2.2
Total	*215.8*	*249.9*	*302.7*	*417.4*	*524.1*
Gross capital formation—					
Expenditure on new fixed assets—					
General public services	43.4	46.2	52.3	84.7	105.0
Education	0.4	0.3	0.7	1.9	4.2
Health	0.7	0.5	0.9	5 8	1.8
Social security and welfare	1.0	0.8	2.6	3.8	6.2
Housing and community amenities—					
Community and regional development	0.2	1.1	2.6	1.5	2.8
Protection of the environment	53.0	62.9	65.1	110.0	112.1
Other	1.0	1.3	2.5	4.3	5.5
Recreation and culture	25.7	32.0	36.0	54.9	81.6
Economic services—					
Mining, manufacturing and construction	2.2	2.5	2.3	4.7	10.7
Electricity and gas	71.9	79.2	75.7	94.5	110.7
Water supply	32.4	40.3	40.3	46.2	53.7
Road systems and regulation	282.9	320.8	360.9	482.2	617.7
Other transport services, n.e.c.	2.3	1.7	1.8	1.6	2.2
Other economic services	3.6	1.9	1.7	3.4	5.1
Other purposes	..	..	..	..	..
Total	*520.8*	*591.5*	*645.3*	*899.4*	*1,119.3*
Expenditure on existing assets and stocks	8.9	3.5	9.7	37.2	42.6
Interest paid	104.9	116.8	128.2	145.2	168.4
Net advances to the private sector	2.8	2.0	3.4	5.6	6.3
Total outlay	**853.3**	**963.7**	**1,089.3**	**1,504.8**	**1,860.6**
of which—					
Current outlay	320.7	366.7	431.0	562.6	692.5
Capital outlay	532.6	596.9	658.3	942.2	1,168.1
RECEIPTS AND FINANCING ITEMS					
Receipts—					
Taxes, fees, fines, etc.—					
Rates on land	443.5	487.7	559.7	706.6	884.6
Licences, etc.	15.3	19.5	24.9	25.9	30.2
Total	*458.8*	*507.2*	*584.6*	*732.5*	*914.8*
Income from public enterprises	79.1	103.1	102.5	96.7	120.5
Property income	13.8	15.7	24.9	42.3	44.8
Grants from State and Federal authorities	110.5	155.2	139.1	307.5	420 8
Total receipts	*662.2*	*781.2*	*851.1*	*1,179.0*	*1,500.9*
Financing items—					
Net borrowing—local authority securities	139.8	156.8	144.5	212.6	281.6
Advances from State and Federal authorities	1.6	3.1	6.0	17.3	22 8
Net receipts of private trust funds	1.1	12.3	5.8	−1.3	−0.5
Reduction in cash and bank balances	−24.1	−54.2	−6.8	39.8	−29.0
Reduction in security holdings	−6.1	−17.1	−10.5	−0.2	−40.7
Other funds available (including errors and omissions)—					
Depreciation allowances	30.0	32.5	34.6	41.5	46.7
Other	48.8	49.3	64.5	16.1	78.7
Total financing items	*191.1*	*182.5*	*238.2*	*325.7*	*359.7*
Total funds available	**853.3**	**963.7**	**1,089.3**	**1,504.8**	**1,860.6**

LOCAL AUTHORITIES: RECEIPTS AND OUTLAY, 1975-76

($ million)

OUTLAY

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
Final consumption expenditure—							
General public services	64.2	51.6	35.7	17.7	15.6	6.5	191.3
Education	0.4	6.1	..	..	0.1	..	6.6
Health	15.5	14.5	3.9	1.0	2.5	1.1	38.5
Social security and welfare	2.4	11.3	..	−0.2	0.2	..	13.8
Housing and community amenities—							
Community and regional development	5.2	2.7	2.4	1.4	0.2	..	11.8
Protection of the environment	15.8	12.5	7.0	4.5	4.4	1.9	46.1
Other	3.7	1.7	2.1	0.7	0.7	−0.4	8.5
Recreation and culture	60.9	48.4	15.1	10.9	15.4	6.8	157.6
Economic services	13.7	27.7	1.7	2.6	1.9	0.2	47.7
Other purposes	2.2	..	..	..	..	..	2.2
Total	*183.9*	*176.3*	*68.0*	*38.6*	*41.1*	*16.1*	*524.1*
Gross capital formation—							
Expenditure on new fixed assets—							
General public services	22.5	56.8	13.9	4.7	6.1	1.0	105.0
Education	2.0	1.1	..	..	1.1	..	4.2
Health	0.6	0.9	0.1	..	0.2	..	1.8
Social security and welfare	2.4	0.8	0.2	1.8	0.9	..	6.2
Housing and community amenities—							
Community and regional development	2.0	..	0.5	..	0.3	..	2.8
Protection of the environment	35.1	11.6	46.7	8.6	2.0	8.1	112.1
Other	4.8	..	0.5	0.2	..	..	5.5
Recreation and culture	30.0	15.3	12.2	5.3	15.2	3.6	81.6
Economic services—							
Mining; manufacturing and construction	10.0	0.3	..	..	..	0.3	10.7
Electricity and gas	95.3	4.8	9.0	0.9	0.7	..	110.7
Water supply	16.0	0.5	35.2	..	..	2.1	53.7
Road systems and regulation	268.3	163.2	84.1	40.8	43.6	17.7	617.7
Other transport services, n.e.c.	0.5	..	1.7	..	..	..	2.2
Other economic services	3.2	0.5	..	..	1.4	..	5.1
Other purposes	..	..	..	..	..	..	..
Total	*492.6*	*255.7*	*204.3*	*62.3*	*71.6*	*32.7*	*1,119.3*
Expenditure on existing assets and stocks	25.3	20.0	−4.1	2.3	−1.0	..	42.6
Interest paid	71.4	27.1	48.7	5.5	8.6	7.1	168.4
Net advances to the private sector	6.3	..	..	..	..	..	6.3
Total outlay	**779.4**	**479.2**	**316.9**	**108.8**	**120.4**	**55.9**	**1,860.6**
of which—							
Current outlay	255.3	203.5	116.7	44.1	49.7	23.2	692.5
Capital outlay	524.1	275.7	200.2	64.7	70.7	32.7	1,168.1

RECEIPTS AND FINANCING ITEMS

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
Receipts—							
Taxes, fees, fines, etc.—							
Rates on land	360.9	258.8	113.0	63.1	62.4	26.4	884.6
Licences, etc.	8.0	12.9	5.5	0.9	2.1	0.8	30.2
Total	*368.9*	*271.7*	*118.5*	*64.0*	*64.5*	*27.2*	*914.8*
Income from public enterprises	70.2	5.8	41.1	−0.2	0.5	3.1	120.5
Property income	25.5	6.0	8.5	1.9	2.9	−0.1	44.8
Grants from State and Federal authorities	140.7	105.9	91.4	33.5	36.5	12.8	420.8
Total receipts	*605.3*	*389.4*	*259.5*	*99.2*	*104.5*	*43.0*	*1,500.9*
Financing items—							
Net borrowing—local authority securities	121.3	44.4	80.0	6.2	17.9	11.8	281.6
Advances from State and Federal authorities	6.6	0.6	16.1	−0.4	−0.2	0.1	22.8
Net receipts of private trust funds	..	..	−0.5	..	..	..	−0.5
Reduction in cash and bank balances	−4.0	3.2	−28.2	−0.6	..	0.7	−29.0
Reduction in security holdings	−36.1	−1.4	..	..	..	−3.1	−40.7
Other funds available (including errors and omissions)—							
Depreciation allowances	46.7	..	..	..	..	..	46.7
Other	39.7	43.0	−10.0	4.3	−1.7	3.5	78.7
Total financing items	*174.1*	*89.8*	*57.4*	*9.6*	*15.9*	*12.9*	*359.7*
Total funds available	**779.4**	**479.2**	**316.9**	**108.8**	**120.4**	**55.9**	**1,860.6**

ALL PUBLIC AUTHORITIES

In the following tables the transactions of the Commonwealth Government, State and Local authorities have been brought together and consolidated to provide details of the receipts and outlay of the public authority sector as a whole.

Summary of receipts and outlay

The receipts and outlay of all public authorities for the five year period ended 1975–76 are set out in the following table.

ALL PUBLIC AUTHORITIES(*a*): RECEIPTS AND OUTLAY
($ million)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
OUTLAY					
Final consumption expenditure	4,770.7	5,435.7	6,648.1	9,169.6	11,418.9
Gross capital formation—					
Increase in stocks	−13.8	−43.7	56.7	383.0	−35.3
Expenditure on new fixed assets	3,238.5	3,413.1	3,923.3	5,567.4	6,574.3
Expenditure on existing assets (net)	122.0	72.8	208.1	374.6	263.4
Total gross capital formation	*3,346.7*	*3,442.3*	*4,188.2*	*6,324.9*	*6,802.4*
Transfer payments—					
Interest	910.8	1,011.0	1,072.6	1,292.0	1,461.7
Transfers to persons	2,177.2	2,706.7	3,330.9	4,629.3	6,465.2
Subsidies	407.1	352.6	332.3	325.1	316.0
Transfers overseas	205.4	251.6	288.0	349.2	370.1
Grants for private capital purposes	69.2	89.7	112.9	191.0	257.1
Total transfer payments	*3,769.6*	*4,411.5*	*5,136.7*	*6,786.5*	*8,870.1*
Net advances—					
To the private sector	83.6	30.3	116.0	281.0	295.2
To public financial enterprises	60.4	64.3	75.5	256.3	60.4
To overseas	−4.1	7.4	32.2	35.8	79.5
Total net advances	*139.8*	*102.1*	*223.7*	*573.1*	*435.1*
Total outlay	**12,026.8**	**13,391.5**	**16,196.6**	**22,854.2**	**27,526.5**
of which—					
Current outlay	8,540.3	9,847.1	11,784.8	15,956.1	20,289.0
Capital outlay	3,486.5	3,544.4	4,411.9	6,898.0	7,237.5
RECEIPTS AND FINANCING ITEMS					
Receipts—					
Taxes, fees, fines, etc.	9,811.3	10,757.1	13,705.9	17,734.1	21,318.9
Income from public enterprises	794.0	776.5	677.4	542.6	873.3
Interest, etc., received	297.6	338.9	419.4	540.6	585.3
Total receipts	*10,902.9*	*11,872.5*	*14,802.7*	*18,817.3*	*22,777.5*
Financing items—					
Net borrowing—					
Treasury notes	−9.7	164.6	−37.8	1,689.1	−769.6
Commonwealth Government securities	616.7	665.5	801.2	554.1	3,165.4
Local authority and public corporation securities	477.1	462.9	504.0	635.6	850.0
Other general Government securities	55.8	64.2	65.0	73.7	116.1
Total net borrowing	*1,139.9*	*1,357.2*	*1,332.5*	*2,952.6*	*3,361.9*
Net receipts of private trust funds	168.9	221.7	17.6	235.4	247.8
Reduction in cash and bank balances	−701.5	−550.2	−792.4	577.0	−477.0
Reduction in security holdings	−78.3	−175.4	−167.7	−551.6	536.2
Other funds available (including errors and omissions)—					
Depreciation allowances	492.2	534.3	581.8	595.4	765.9
Other	102.7	131.4	422.1	228.1	314.2
Total financing items	*1,123.9*	*1,519.0*	*1,393.9*	*4,036.9*	*4,749.0*
Total funds available	**12,026.8**	**13,391.5**	**16,196.6**	**22,854.2**	**27,526.5**

(*a*) Excludes financial enterprises.

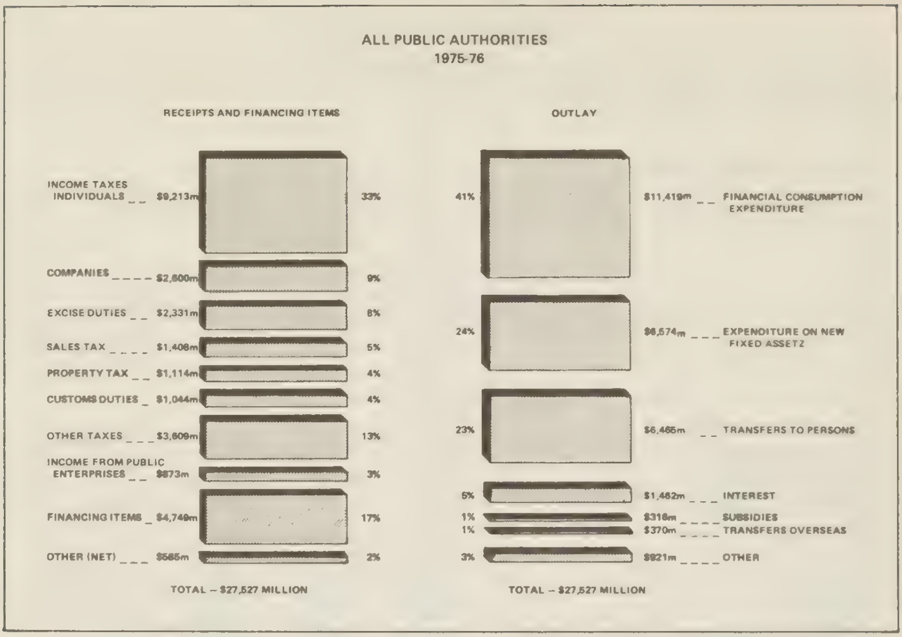


PLATE 44

Main components of outlay

The following tables show final consumption expenditure and expenditure on new fixed assets of all public authorities classified by purpose for the years 1971–72 to 1975–76.

ALL PUBLIC AUTHORITIES: FINAL CONSUMPTION EXPENDITURE CLASSIFIED BY PURPOSE

($ million)

	1970–71	*1971–72*	*1972–73*	*1973–74*	*1974–75*
General public services—					
General administration, n.e.c.	553.5	624.9	768.1	1,018.1	1,230.7
External affairs	45.0	50.0	58.3	83.8	91.7
Law, order and public safety	308.1	360.3	447.0	623.7	767.9
General research	69.4	77.7	94.7	118.2	136.0
Defence	1,127.3	1,178.4	1,222.5	1,444.2	1,679.9
Education	1,208.6	1,443.0	1,887.6	2,741.0	3,382.6
Health	655.6	759.8	1,022.7	1,537.7	2,277.4
Social security and welfare	108.1	134.8	169.8	257.1	333.0
Housing and community amenities—					
Housing	2.7	5.3	7.6	12.4	13.0
Community and regional development	15.6	21.6	35.9	58.9	72.9
Protection of the environment	19.3	27.2	38.2	57.4	70.2
Community amenities	2.9	3.9	5.1	6.9	8.4
Recreation and culture	173.2	205.6	255.0	353.9	439.4
Economic services—					
Agriculture, forestry, fishing	199.5	239.0	267.9	333.9	387.3
Mining, manufacturing and construction	33.6	40.8	47.6	61.6	69.9
Electricity, gas and water supply	0.2	1.8	1.1	4.3	4.6
Transport and communication	84.8	96.5	120.5	136.2	146.8
Other economic services(*a*)	162.4	164.2	196.5	275.1	299.3
Other purposes	0.9	1.0	1.9	45.4	7.9
Total	4,770.7	5,435.7	6,648.1	9,169.6	11,418.9

(*a*) Includes general administration, regulation and research.

ALL PUBLIC AUTHORITIES: EXPENDITURE ON NEW FIXED ASSETS CLASSIFIED BY PURPOSE

($ million)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
General public services—					
General administration	89.0	111.9	135.5	204.4	254.9
External affairs	3.5	15.4	12.3	15.9	20.3
Law, order and public safety	29.9	37.7	42.5	54.4	72.2
General research	10.0	9.4	15.1	20.6	32.1
Education	288.1	328.0	382.1	656.3	700.9
Health	115.7	117.4	146.7	249.0	380.5
Social security and welfare	9.7	9.3	21.4	21.2	27.7
Housing and community amenities—					
Housing	78.5	75.8	115.3	296.2	328.0
Community and regional development	24.5	28.3	39.4	56.2	81.5
Protection of the environment	224.3	273.4	312.4	428.5	480.0
Community amenities	0.4	0.5	0.5	1.2	1.2
Recreation and culture	66.0	75.7	78.0	104.7	138.5
Economic services—					
Agriculture, forestry and fishing	107.9	119.0	118.1	159.6	185.8
Mining, manufacturing and construction	31.0	34.0	46.6	69.9	84.7
Electricity and gas	409.4	419.6	439.0	553.3	653.3
Water supply	161.2	185.0	198.1	248.7	302.1
Rail transport(*a*)	156.1	149.9	146.2	231.4	321.1
Sea transport	89.6	85.0	75.0	132.9	136.9
Road systems and regulation	696.3	764.6	848.5	1,098.2	1,351.7
Air transport	176.3	60.1	85.8	97.2	88.0
Pipelines	2.6	12.1	56.3	59.4	56.5
Other transport services, n.e.c.	13.6	9.7	10.2	21.0	33.6
Communications	426.7	460.3	559.1	717.9	756.8
Other economic services(*b*)	77.0	83.2	85.7	154.8	152.0
Other purposes	0.9	0.7	2.8	8.6	6.2
Total	**3,288.3**	**3,466.0**	**3,972.7**	**5,661.5**	**6,646.5**
of which—					
Public financial enterprises	49.7	52.9	49.3	94.2	72.2

(*a*) Includes suburban rail transport system. (*b*) Includes general administration, regulation and research.

Main components of receipts

Taxes and net borrowing constitute the main sources of financing of the activities of the public authorities. Details of the debt of public authorities are given in the next section of this chapter. Taxation, by type of tax, for the years 1971–72 to 1975–76 was as follows.

ALL PUBLIC AUTHORITIES: TAXATION, BY TYPE OF TAX

($ million)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Income tax—					
Individuals	3,765	4,084	5,485	7,709	9,213
Companies(*a*)	1,520	1,617	2,013	2,432	2,600
Estate, gift, probate and succession duties	220	237	261	278	314
Customs duties	469	513	604	840	1,044
Excise duties	1,213	1,268	1,555	1,729	2,331
Sales tax	681	765	969	1,154	1,408
Primary production taxes	28	35	64	143	115
Payroll tax	396	455	675	1,014	1,180
Property taxes	562	618	703	898	1,114
Liquor taxes	49	53	59	77	98
Taxes on gambling	149	172	208	282	345
Taxes on ownership and operation of motor vehicles	303	349	380	452	550
Stamp duties, n.e.i.	252	355	435	393	555
Other taxes, fees, fines, etc.	204	236	295	333	452
Total	**9,811**	**10,757**	**13,706**	**17,734**	**21,319**

(*a*) Includes dividend and interest (withholding) taxes. Excludes income taxes paid by Commonwealth Government public enterprises.

Level of government

In the following tables details are given for 1975–76 of the receipts and outlay of all public authorities, broken down by level of government in order to show their relative contributions to various expenditure programs, and their roles in financing these programs through taxes and transfers.

ALL PUBLIC AUTHORITIES(a): RECEIPTS AND OUTLAY BY LEVEL OF GOVERNMENT, 1975-76

($ million)

	Federal authorities	*State authorities*	*Local authorities*	*All public authorities*
OUTLAY				
Expenditure on goods and services—				
General public services—				
General administration, n.e.c.	731.7	464.4	289.5	1,485.6
External affairs	112.0	..	..	112.0
Law, order and public safety	107.2	726.0	6.9	840.1
General research	162.7	5.4	..	168.1
Defence	1,679.9	..	..	1,679.9
Education	272.2	3,800.4	10.8	4,083.5
Health	473.6	2,143.9	40.3	2,657.9
Social security and welfare	211.0	129.8	20.0	360.7
Housing and community amenities—				
Housing	92.6	243.4	4.9	341.0
Community and regional development	96.0	43.8	14.6	154.4
Protection of the environment	38.0	354.2	158.2	550.2
Community amenities	0.3	0.3	9.1	9.6
Recreation and Culture	234.9	103.8	239.2	577.9
Economic services—				
Agriculture, forestry and fishing	124.7	443.2	5.1	573.1
Mining, manufacturing and construction	29.9	106.3	18.5	154.6
Electricity, gas and water supply	31.5	764.1	164.4	960.0
Transport and communication	1,123.1	1,122.5	645.7	2,891.4
Other economic services	236.0	201.3	14.3	451.3
Other purposes	10.5	1.5	2.2	14.1
Total	*5,767.8*	*10,654.2*	*1,643.5*	*18,065.4*
less expenditure by public financial enterprises	−38.5	−33.7	..	−72.2
Total expenditure on goods and services	**5,729.3**	**10,620.5**	**1,643.5**	**17,993.2**
of which—				
Final consumption expenditure	4,156.2	6,738.6	524.1	11,418.9
Expenditure on new fixed assets	1,573.1	3,882.0	1,119.3	6,574.3
Increase in stocks	−74.5	30.5	8.7	−35.3
Expenditure on existing assets (net)	6.6	222.9	33.8	263.4
Transfer payments—				
Interest	116.9	1,176.4	168.4	1,461.7
Transfers to persons	6,196.8	268.5	..	6,465.2
Subsidies	271.2	44.8	..	316.0
Transfers overseas	370.0	0.1	..	370.0
Grants for private capital purposes	178.5	78.6	..	257.0
Grants to the States—for current purposes	5,427.7	..	..	(b)
—for capital purposes	1,556.6	..	..	(b)
Grants to local authorities	110.0	310.8	..	(b)
Total transfer payments	*14,227.7*	*1,879.1*	*168.4*	*8,870.1*
Net advances to—				
The private sector	120.8	168.1	6.3	295.2
Public financial enterprises	−21.1	81.5	..	60.4
The States	1,372.4	..	..	(b)
Local authorities	..	22.8	..	(b)
Overseas	79.5	..	..	79.5
Total net advances	*1,551.6*	*272.4*	*6.3*	*435.1*
Total outlay	**21,440.7**	**13,025.4**	**1,860.6**	**27,526.5**
of which—				
Current outlay	16,827.3	8,617.7	692.5	20,289.0
Capital outlay	4,613.5	4,407.8	1,168.1	7,237.5

(a) Excludes financial enterprises. (b) In consolidated figures for all public authorities, inter-authority grants and advances are not shown.

ALL PUBLIC AUTHORITIES(*a*): RECEIPTS AND OUTLAY BY LEVEL OF GOVERNMENT, 1975–76—*continued*

($ million)

	Federal authorities	*State authorities*	*Local authorities*	*All public authorities*
RECEIPTS AND FINANCING ITEMS				
Receipts—				
Taxes, fees, fines, etc.—				
Income tax—				
Individuals	9,212.7	..	..	9,212.7
Companies(*b*)	2,600.2	..	..	2,600.2
Estate, gift, probate and succession duties	86.8	226.9	..	313.7
Customs duties	1,043.7	..	..	1,043.7
Excise duties	2,331.3	..	..	2,331.3
Sales tax	1,408.3	..	..	1,408.3
Payroll tax	17.3	1,162.5	..	1,179.8
Primary production taxes and charges	115.6	..	..	115.6
Property taxes	12.4	216.9	884.6	1,114.0
Liquor taxes	2.0	95.8	..	97.8
Taxes on gambling	..	345.4	..	345.4
Taxes on ownership and operation of motor vehicles	5.4	545.0	0.1	550.5
Stamp duties, n.e.i.	4.5	550.9	..	555.4
Fees from regulatory services	12.0	32.5	21.8	66.1
Other taxes, fees, fines, etc.	85.0	291.2	8.3	384.7
Total taxes, etc.	*16,937.2*	*3,466.9*	*914.8*	*21,318.9*
Income from public enterprises	434.5	318.3	120.5	873.3
Interest, etc., received	115.9	424.6	44.8	585.3
Grants from the Commonwealth Government				
For current purposes	..	5,427.7	..	(*c*)
For capital purposes	..	1,556.6	..	(*c*)
Direct grants from Commonwealth Government to local authorities	..	..	110.0	(*c*)
Grants from State authorities	..	..	310.8	(*c*)
Total Receipts	**17,487.6**	**11,194.1**	**1,500.9**	**22,777.5**
Financing items—				
Net borrowing—				
Treasury bills and notes	−769.6	..	..	−769.6
Commonweath government securities	3,165.4	..	..	3,165.4
Local authorities and public corporation securities	22.6	545.8	281.6	850.0
Other general government securities	0.4	115.6	..	116.1
Total net borrowing	*2,418.8*	*661.4*	*281.6*	*3,361.9*
Advances from the Commonwealth Government—				
For loan works purposes	..	708.7	..	(*c*)
Other	..	663.8	..	(*c*)
Advances from State authorities	..	..	22.8	(*c*)
Net receipts of private trust funds	216.7	31.6	−0.5	247.8
Reduction in cash and bank balances	270.1	−718.1	−29.0	−477.0
Reduction in security holdings	567.9	9.0	−40.7	536.2
Other funds available (including errors and omissions)—				
Depreciation allowances	405.0	314.2	46.7	765.9
Other	74.6	160.7	78.7	314.2
Total financing items	**3,953.1**	**1,831.3**	**359.7**	**4,749.0**
Total funds available	**21,440.7**	**13,025.4**	**1,860.6**	**27,526.5**

(*a*) Excludes financial enterprises. (*b*) Includes dividend and interest (withholding) taxes. Excludes income taxes paid by Commonwealth Government public enterprises. (*c*) In consolidated figures for all public authorities, inter-authority grants and advances are not shown.

PUBLIC SECTOR BORROWING

Figures given in this section do not purport to show either 'public debt' or 'net public debt', but are designed to provide details of securities issued on behalf of the Commonwealth Government and the States, together with some details of the amounts borrowed by State and local authorities with independent borrowing powers.

For a number of reasons, this information cannot be aggregated, without adjustment, to provide a measure of the 'debt' of public authorities. There are forms of debt not evidenced by the issue of securities, such as Commonwealth Government advances to the States for specific capital purposes. Governments themselves maintain significant holdings of their own securities; for example, the Commonwealth Government, in the National Debt Sinking Fund, the Loan Consolidation and Investment Reserve, and in other Trust Funds, holds large investments in securities issued either directly by itself or on behalf of the States. Some of the securities issued on behalf of the States and held by the Commonwealth Government represent the proceeds of overseas loans, securities for which were issued directly by the Commonwealth Government, the Australian currency counterpart proceeds of the loans being invested in special loans to finance State works programs. A number of State public corporations and local authorities also maintain significant investments in government securities (including their own securities). Aggregation of the figures for securities on issue which follow would clearly involve a substantial degree of duplication; the sum of securities on issue therefore cannot be regarded as representing 'net public debt'.

Commonwealth Government and States: Government securities on issue

Under the 1927 Financial Agreement between the Commonwealth Government and the States, the Commonwealth Government accepted responsibility for the securities of State governments then on issue and was empowered to arrange for all future borrowings on behalf of the Commonwealth and the States and to issue Commonwealth Government securities for all moneys borrowed.

A National Debt Sinking Fund, which is administered by the National Debt Commission, was established by the *National Debt Sinking Fund Act* 1923 for the redemption of securities issued on behalf of the Commonwealth Government. Under the terms of the Financial Agreement, the sinking funds existing in respect of the States' debts were also placed under the control of the Commission. The Commonwealth Government is reimbursed by the States for interest, exchange, etc. paid on their behalf, and the securities are redeemed from the Fund to which both the Commonwealth and the State governments make pre-determined contributions. The amounts to be contributed were varied when the *National Debt Sinking Fund Act* 1966 repealed all previous legislation on sinking funds relating to securities on issue on behalf of the Commonwealth Government, and again in 1976 when the Act was amended to reflect the amendments to the Financial Agreement. In 1976 the Commonwealth assumed the responsibility for over $1,000 million of States' debt existing as at 30 June 1975. As a consequence, the separate States' Sinking Funds were absorbed into the National Debt Sinking Fund, with separate accounts being maintained for the Commonwealth and each State.

For further information relating to the recent operations of the National Debt Sinking Fund reference should be made to the fifty-third annual report of the National Debt Commission. Particulars of the creation and operation of sinking funds by the *National Debt Sinking Fund Act* 1923 are included in issues of the Year Book prior to No. 23, and a general description of the provisions applying between 1966 and 1976 is given in issue No. 61.

In the tables which follow, details are given of transactions in Commonwealth Government securities issued on account of the Commonwealth Government and the States. Amounts relating to overseas loans are shown in the currencies in which the loans are repayable, and in Australian currency equivalent calculated on the basis of the rates of exchange ruling at 30 June in each year shown. All amounts shown are at face value.

For figures which permit accurate analysis of the structure and movement of securities issued on behalf of the Commonwealth and States, refer to the Commonwealth Budget paper No. 6, *Government Securities on Issue*.

Net movement in securities on issue

Summary details of the net movement in securities issued for Commonwealth Government purposes and on account of the States during the period 1971-72 to 1975-76, are given in the following group of tables.

NET MOVEMENT IN GOVERNMENT SECURITIES ON ISSUE
($ million)

—	*1971-72*	*1972-73*	*1973-74*	*1974-75*	*1975-76*
NEW SECURITIES ISSUED					
Securities repayable in Australian currency—					
Inscribed stock and bonds	814.8	870.4	1,416.4	1,054.9	2,176.6
Australian Savings Bonds	..	..	..	..	1,202.3
Special bonds	139.2	109.2	454.2	343.0	160.1
Drought bonds	0.2	0.8	3.2	1.5	0.2
Advance loan subscriptions	0.4	(*c*)11.6	(*c*)−8.0	(*c*)−14.3	22.6
Overdue securities	..	..	..	..	
Tax-free stock	..	..	..	..	
Debentures	..	..		..	..

For footnotes *see* next page.

NET MOVEMENT IN GOVERNMENT SECURITIES ON ISSUE—*continued*

($ million)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Stock issued to Government Savings banks under special agreements(*a*)	24.5	68.4	48.5	21.1	5.9
Treasury notes	(*c*)−9.7	(*c*)164.6	(*c*)−37.8	(*c*)1,689.1	(*c*)2,667.1
Treasury bills—					
Internal	(*c*)−5.3	(*c*)−8.7	(*c*)−94.7	(*c*)79.4	(*c*)157.0
Public	..	..	..	..	850.0
Total	*964.0*	*1,216.3*	*1,781.9*	*3,174.8*	*7,241.9*
Securities repayable in overseas currencies(*b*)	161.0	116.0	16.1	235.1	268.1
Total new securities issued	**1,125.0**	**1,332.3**	**1,797.9**	**3,409.9**	**7,510.0**
REDEMPTIONS, REPURCHASES, CANCELLATIONS(*d*)					
Securities repayable in Australian currency—					
Inscribed stock and bonds	225.4	246.4	615.0	478.2	286.7
Australian Savings Bonds	..	..	..	..	13.1
Special bonds	83.8	75.7	363.6	374.8	216.9
Drought bonds	0.3	0.2	0.3	0.9	0.9
Advance loan subscriptions	..	..	..	..	..
Overdue securities	1.4	−0.2	−0.5	0.2	0.6
Tax-free stock	0.1	0.4	0.1	..	0.2
Debentures	2.8	3.0	3.1	3.2	3.4
Stock issued to Government Savings banks under special agreements(*a*)	4.1	4.1	4.8	4.4	8.1
Treasury notes	..	..	..	..	4,286.7
Treasury bills—					
Internal	..	..	..	..	
Public	..	..	..	..	
Total	*317.8*	*329.5*	*986.4*	*861.8*	*4,816.6*
Securities repayable in overseas currencies(*b*)	264.4	293.6	249.1	84.4	125.6
Total redemptions, etc.	**582.2**	**623.1**	**1,235.5**	**946.2**	**4,942.2**
NET MOVEMENT					
Securities repayable in Australian currency—					
Inscribed stock and bonds	589.4	624.1	801.4	576.7	1,889.9
Australian Savings Bonds	..	..	..	..	1,189.2
Special bonds	55.4	33.5	90.6	−31.7	−56.7
Drought bonds	−0.1	0.6	2.9	0.6	−0.7
Advance loan subscriptions	0.4	11.6	−8.0	−14.3	22.6
Overdue securities	−1.4	0.2	0.5	−0.2	−0.6
Tax-free stock	−0.1	−0.4	−0.1	..	−0.2
Debentures	−2.8	−3.0	−3.1	−3.2	−3.4
Stock issued to Government Savings banks under special agreements(*a*)	20.4	64.3	43.7	16.7	−2.2
Treasury notes	−9.7	164.6	−37.8	1,689.1	−1,619.6
Treasury bills—					
Internal	−5.3	−8.7	−94.7	79.4	157.0
Public	..	..	..	..	850.0
Total	*646.2*	*886.7*	*795.5*	*2,313.0*	*2,425.4*
Securities repayable in overseas currencies(*b*)	−103.4	−177.6	−233.1	150.7	142.6
Net movement in securities on issue	**542.7**	**709.1**	**562.4**	**2,463.7**	**2,568.0**

(*a*) Recorded in Commonwealth Government Loan Fund as State domestic raisings. (*b*) Australian currency equivalent at rates of exchange ruling at 30 June in each of the years shown. (*c*) Net issue. (*d*) Includes conversions from one type of security to another, which affect the net movements of individual loan categories, but do not affect the overall net movement.

Government securities on issue.

The following table provides details of government securities on issue on account of the Commonwealth Government and the States, repayable in Australian and in overseas currencies.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH GOVERNMENT AND STATES
($ million)

	30 June—				
	1972	*1973*	*1974*	*1975*	*1976*
For Commonwealth Government purposes—					
Repayable in Australian currency—					
Inscribed stock and bonds	1,165.7	1,233.2	1,686.5	1,613.1	3,947.5
Australian savings bonds	..	..	..	..	1,178.4
Special bonds	252.5	262.9	249.9	246.5	196.1
Drought bonds	0.6	1.1	4.0	4.6	3.9
Advance loan subscriptions	14.0	25.6	17.6	3.3	25.9
Overdue securities	4.0	3.8	4.5	4.2	3.7
Treasury notes	260.1	424.7	386.9	2,076.0	456.5
Treasury bills—					
Internal	1,034.2	1,025.5	930.8	1,010.2	1,167.2
Public	..	..	..	..	850.0
Total	*2,731.0*	*2,976.8*	*3,280.2*	*4,957.9*	*7,829.2*
Repayable in overseas currencies(*a*)	1,076.9	986.2	807.3	998.2	1,181.1
Total Commonwealth Government	*3,807.9*	*3,963.0*	*4,087.5*	*5,956.2*	*9,010.3*
On account of States—					
Repayable in Australian currency—					
Inscribed stock and bonds	8,887.6	9,444.2	9,792.3	10,442.4	9,997.9
Australian savings bonds	..	..	..	..	10.8
Special bonds	620.8	643.9	747.4	719.1	712.7
Tax-free stock	15.8	15.4	15.3	15.3	15.1
Stock issued to Government Savings banks under special agreements	297.4	361.7	405.4	422.0	419.8
Debentures	39.6	36.6	33.5	30.3	27.0
Overdue securities	..	0.4	0.2	0.4	0.3
Total	*9,861.2*	*10,502.2*	*10,994.2*	*11,629.5*	*11,183.6*
Repayable in overseas currencies(*a*)	365.6	278.6	224.5	184.2	143.9
Total States	*10,226.8*	*10,780.8*	*11,218.7*	*11,813.8*	*11,327.6*
of which—					
New South Wales	3,359.4	3,528.6	3,654.4	3,834.1	3,721.0
Victoria	2,488.3	2,632.9	2,746.6	2,896.2	2,834.0
Queensland	1,355.7	1,427.8	1,485.0	1,576.7	1,538.7
South Australia	1,332.0	1,409.7	1,473.3	1,551.3	1,389.5
Western Australia	981.4	1,029.9	1,070.9	1,121.6	1,090.5
Tasmania	709.9	752.0	787.6	833.9	753.8
Total Commonwealth Government and States	**14,034.7**	**14,743.8**	**15,306.2**	**17,769.9**	**20,337.9**

(*a*) Australian currency equivalent.

State and local authorities' borrowings

The borrowings of Commonwealth, State and local authorities come within the purview of the Loan Council under a 'gentlemen's agreement' originating in 1936. The Loan Council determines maximum interest rates and other terms and conditions of loans raised by authorities and approves the aggregate annual borrowing program for authorities borrowing more than $800,000 (in 1975–76 this limit was $700,000) in the financial year. The total program approved is distributed by the Council between the States, and each State determines the distribution between individual authorities of its share of the overall borrowing program approved for such authorities. Authorities which individually borrow less than $800,000 (1975–76, $700,000) in the financial year are also subject to the terms and conditions applying under the 'gentlemen's agreement', and it is the responsibility of the States to ensure that these authorities conform with these terms and conditions. No aggregate annual limit on their borrowings is imposed by the Loan Council.

The table below shows the aggregate borrowings by the State and local authorities in each of the years 1971–72 to 1975–76. It will be seen that the amounts borrowed by local authorities vary between the States, reflecting a number of factors including, importantly, variations between the States in the range of services provided by local government authorities. For example, the high figures for Queensland reflect, in part, borrowings by the Brisbane City Council which carries out a number of functions (e.g. metropolitan bus services and sewerage services) which in other States are undertaken by State authorities.

For further information relating to the figures given in the table, reference should be made to the Commonwealth Budget paper No. 7, *Payments to or for the States and Local Government Authorities.*

NEW MONEY BORROWINGS BY STATE AND LOCAL AUTHORITIES
($'000)

	New South Wales	*Victoria*	*Queensland*	*South Australia*	*Western Australia*	*Tasmania*	*Total*
			STATE AUTHORITIES				
1971–72 . .	98,562	137,699	48,335	18,504	27,148	10,479	340,727
1972–73 . .	122,671	158,686	48,559	22,391	35,672	10,904	398,883
1973–74 . .	142,357	177,510	61,254	25,492	37,883	10,113	454,609
1974–75 . .	164,885	207,532	75,545	29,968	41,969	13,646	533,545
1975–76 . .	205,312	256,930	102,411	39,490	44,309	17,720	666,172
			LOCAL AUTHORITIES				
1971–72 . .	79,998	33,813	59,987	10,109	14,582	7,321	205,810
1972–73 . .	95,291	40,958	71,391	9,698	19,043	7,934	244,315
1973–74 . .	104,540	40,974	77,472	10,819	20,820	8,591	263,216
1974–75 . .	132,803	50,188	102,804	13,617	21,839	10,710	331,962
1975–76 . .	163,847	63,043	102,097	16,831	27,845	14,503	388.166

For further detailed information on the subjects covered by this chapter *see* the annual bulletins published by the ABS: *Australian National Accounts—National Income and Expenditure* (5204.0); *Public Authority Finance—Federal Authorities* (5502.0); *Public Authority Finance—State and Local Authorities* (5504.0); *Public Authority Finance—Taxation* (5506.0) and *Public Authority Finance—Estimates* (5501.0). Current information in summarised form is given in *Quarterly Estimates of National Income and Expenditure* (5206.0), and is also contained in the *Monthly Review of Business Statistics* (1304.0), and the *Monthly Digest of Current Economic Statistics* (1305.0).

Additional details of the transactions of public authorities engaged in particular fields of activity, such as defence, transport and communication, health and welfare, education, etc., may be found in other chapters of this Year Book.

CHAPTER 23

NATIONAL ACCOUNTS

National accounting aims at providing a systematic summary of the transactions taking place in the economy, especially of those that relate to the production and use of goods and services, and to transfers of income or capital between sectors of the economy.

Estimates of national income and expenditure have been compiled by the Bureau since 1944–45 and have been published annually as papers entitled *National Income and Expenditure* accompanying the Commonwealth Budgets.

NATIONAL INCOME AND EXPENDITURE

Description of National Income and Expenditure Accounts

A brief description of the conceptual basis of national accounts is given in this section, but for a more detailed treatment of the concepts and structure of the Australian National Accounts reference should be made to *Australian National Accounts, National Income and Expenditure*, 1975–76.

Definition and relationship of the concepts of product, income and expenditure

The main concepts of product, income and expenditure in the Australian National Accounts are defined and expressed in equivalents as follows:

Gross domestic product is the total market value of goods and services produced in Australia within a given period after deduction of the cost of goods and services used up in the process of production but before deducting allowances for the consumption of fixed capital. Thus, gross domestic product, as here defined, is 'at market prices'. It is equivalent to gross national expenditure plus exports of goods and services less imports of goods and services. *Gross farm product* is that part of gross domestic product which derives from production in rural industries. *Gross non-farm product* arises from production in all other industries.

Gross domestic product at factor cost is that part of the cost of producing the gross domestic product which consists of gross payments to factors of production (labour, land, capital and enterprise). It represents the value added by these factors in the process of production and is equivalent to gross domestic product less indirect taxes plus subsidies.

Domestic factor incomes is that part of the value added within a given period by factors of production (labour, land, capital and enterprise) which accrues as income to their suppliers after allowing for the depreciation of fixed capital. It is equivalent to gross domestic product at factor cost less depreciation allowances.

National income is the net income accruing within a given period to Australian residents from their services in supplying factors of production (labour, land, capital and enterprise) in Australia or overseas plus indirect taxes less subsidies. It is equivalent to domestic factor incomes plus indirect taxes less subsidies and net income paid overseas.

National disposable income is the net income accruing within a given period to Australian residents from their services in supplying factors of production, from net indirect taxes and from re-distributive transfers. It is equivalent to national income less net transfers overseas.

Gross national expenditure is the total expenditure within a given period on final goods and services (i.e. excluding goods and services used up during the period in the process of production) bought by Australian residents. It is equivalent to the gross domestic product plus imports of goods and services less exports of goods and services.

Household income is the total income, whether in cash or kind, received by persons normally resident in Australia in return for productive activity (such as wages, salaries and supplements, incomes of unincorporated enterprises, etc.) and transfer incomes (such as cash social service benefits, interest, etc.). It includes the imputed interest of life offices and superannuation funds, which is the benefit accruing to policy holders and members from investment income of the funds. It also includes third party motor vehicle and public risk insurance claims paid to persons in respect of policies taken out by enterprises. However, it excludes any income which might be said to accrue to persons in the form of undistributed company income. It also includes any property income received by non-profit organisations such as private schools, churches, charitable organisations, etc.

Framework of accounts and sectors

In the Australian national accounts, four internal sectors are distinguished: corporate trading enterprises (including public trading enterprises), financial enterprises (including the nominal industry), households (including their unincorporated enterprises) and general government. All of these internal sectors engage in productive activity, receive and disburse income and accumulate assets. In this publication no accounts are shown for the internal sectors; these accounts are published in *Budget Paper*, *National Income and Expenditure*, 1976–77. The transactions of the internal sectors are summarised in three accounts: a domestic production account (Table 1, page 634), a national income and outlay account (Table 3, page 635) and a national capital account (Table 4, page 635). In addition, there is an overseas sector having an account (Table 6, page 636) which shows a summary of the transactions into which overseas governments, persons and businesses enter with Australian residents.

The framework of sectors and accounts underlying the Australian national accounts is set out in the following diagram. The heavy rectangles depict the minimum system of four accounts which represent the consolidated accounts of the nation. The light rectangles represent the accounts for institutional sectors. The subdivision of the domestic production account represents production accounts for establishments classified according to industry. Selected transactions from such production accounts are shown in *Australian National Accounts*, *National Income and Expenditure*, 1975–76 (5204.0). Such production accounts can be developed in detail to produce input-output accounts.

Description of the accounts

The *domestic production account* is a consolidation of the production accounts of all producers regardless of sector. The production account is shown as receiving revenue from the sale of goods and services to final buyers; all intermediate goods and services are cancelled out, since they represent a cost to one producer to offset the revenue of the other. On the payments side are shown the pay-

ARTICULATION OF AUSTRALIAN NATIONAL ACCOUNTS

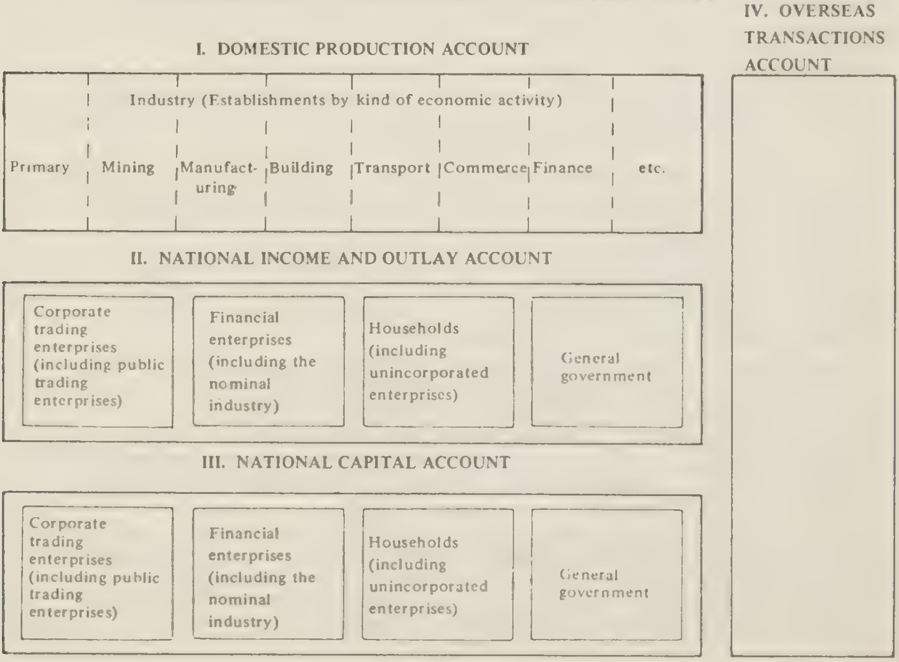

I. DOMESTIC PRODUCTION ACCOUNT
Industry (Establishments by kind of economic activity)
Primary
Mining
Manufacturing
Building
Transport
Commerce
Finance
etc.
II. NATIONAL INCOME AND OUTLAY ACCOUNT
Corporate trading enterprises (including public trading enterprises)
Financial enterprises (including the nominal industry)
Households (including unincorporated enterprises)
General government
III. NATIONAL CAPITAL ACCOUNT
Corporate trading enterprises (including public trading enterprises)
Financial enterprises (including the nominal industry)
Households (including unincorporated enterprises)
General government
IV. OVERSEAS TRANSACTIONS ACCOUNT

PLATE 45

ments of indirect taxes less subsidies, and, since the account is presented from the point of view of the producing unit, the wages and salaries paid to employees. The balance is the gross operating surplus which may be divided into depreciation allowances and net operating surplus. Depreciation allowances is carried to the national capital account (or the sector capital accounts) and net operating surplus, together with wages and salaries and indirect taxes less subsidies, is carried to the national income and outlay account (or sector income and outlay accounts). In input-output tables, the domestic production account is broken up into accounts for separate industries, and transactions associated with intermediate usage of goods and services are shown in the production accounts for the separate industries.

The *national income and outlay account* is shown as receiving wages, salaries and supplements, net operating surplus and indirect taxes less subsidies from the domestic production account. From this income are deducted net payments of income and miscellaneous transfers to overseas; the remainder is the national disposable income. The outlay side of the account shows that this disposable income is largely used for final consumption expenditure and the balance is the nation's saving. The national income and outlay account is a consolidation of the sector income and outlay accounts.

The *national capital account* is a consolidation of the sector capital accounts. It shows on the receipts side depreciation allowances transferred from the domestic production account and saving transferred from the national income and outlay account (or from the sector income and outlay accounts). On the payments side are shown purchases by all sectors of new buildings and capital equipment, the increase in stocks of all sectors and a balance described as net lending to overseas. This concept of net lending to overseas includes increases (and, negatively, decreases) in Australia's overseas monetary reserves. The net lending to overseas is also the balance on current transactions in the overseas transactions account.

The *overseas transactions account* records all transactions of a current nature between Australian and overseas residents. Although this is an account for the overseas sector, the items are named from the Australian viewpoint. The account shows that Australia's current receipts from overseas consist of the value of Australia's exports of goods and services, property income received from overseas and transfers from overseas. These receipts are used for Australia's imports of goods and services and payments of property income and transfers to overseas; the balance of current receipts represents net lending to overseas. Positive net lending to overseas corresponds to a surplus on current transactions with overseas, and negative net lending corresponds to a deficit. The transactions in property income shown in this account differ from estimates shown in balance of payments statistics because, in the national accounts, undistributed company income is not imputed to the beneficial owners. For this reason also, net lending to overseas differs from the balance on current account shown in balance of payments statistics.

Estimates at constant prices

For certain kinds of intertemporal comparison, it is desirable to derive measures which attempt to remove the direct effect of price changes during the periods under review. Such estimates, conventionally described as 'at constant prices', are presented in Tables 2 and 5 (pages 634 and 636 respectively) for gross domestic product, exports and imports of goods and services, and gross national expenditure and its principal components.

Part 1 of *Australian National Accounts, National Income and Expenditure*, 1975–76 contains a discussion of the conceptual problems involved in making these estimates. Appendix B of that publication contains a brief account of the sources and methods used in preparing the estimates.

It should be noted that estimates at constant prices involve approximations and assumptions, and care must be taken in the interpretation and use of results.

Reliability and revisions

Estimates of national income and expenditure are necessarily prepared from a very wide range of statistical information, some of which is available quickly and some of which is available only after a delay of several years. Some of it is closely related to the desired national income concepts, but some of it is not completely satisfactory in various respects, including coverage, concepts and timing. Estimates, in particular for the most recent years, are therefore subject to revision. This applies particularly to estimates based on income tax statistics—income of companies, non-farm unincorporated enterprises, depreciation, and part of gross private fixed investment—which are subject to substantial revisions for the last two years because tabulations of income tax statistics do not become available until about twenty-two months after the end of each financial year.

It is not possible to put precise limits on the degree of revision likely to any particular series, nor to state degrees of reliability in a statistical sense. These depend in large part on the range and quality of the basic statistical data. For illustrations of common causes of revisions reference should be made to *Australian National Accounts, National Income and Expenditure*, 1975–76.

National income and expenditure tables

(For explanatory note on item numbers *see* Note following Table 3.)

TABLE 1
DOMESTIC PRODUCTION ACCOUNT
($ million)

		1972–73	1973–74	1974–75	1975–76	1976–77
	Final consumption expenditure—					
1	Private	24,806	29,256	35,200	41,662	47,704
2	Government	5,416	6,748	9,143	11,308	13,211
	Gross fixed capital expenditure—					
3	Private	6,593	7,962	8,743	10,326	12,036
4	Public enterprises	1,774	2,011	2,834	3,156	3,553
5	General government	1,691	1,952	2,829	3,477	3,693
6	Increase in stocks	−336	1,653	671	−223	1,115
7	Statistical discrepancy	407	1,118	789	664	345
	Gross national expenditure	*40,351*	*50,700*	*60,209*	*70,370*	*81,657*
8	Exports of goods and services	6,935	7,754	9,927	10,889	13,127
9	*Less* Imports of goods and services	5,324	7,649	9,987	10,434	13,253
	Expenditure on gross domestic product	**41,962**	**50,805**	**60,149**	**70,825**	**81,531**
10	Wages, salaries and supplements	22,409	27,573	35,439	40,739	46,025
	Gross operating surplus—					
	Trading enterprises—					
11*a*	Companies	6,077	6,742	6,809	7,920	9,782
11*b*	Unincorporated enterprises	5,816	7,643	7,349	8,067	9,460
11*c*	Dwellings owned by persons	2,411	2,842	3,470	4,209	5,141
11*d*	Public enterprises	1,272	1,235	1,123	1,610	1,938
11*e*	Financial enterprises	834	867	1,017	1,689	1,669
11*f*	*Less* Imputed bank service charge	1,093	1,407	1,674	1,926	2,172
	Gross domestic product at factor cost	*37,726*	*45,495*	*53,533*	*62,308*	*71,843*
12	Indirect taxes less subsidies	4,236	5,310	6,616	8,517	9,688
	Gross domestic product	**41,962**	**50,805**	**60,149**	**70,825**	**81,531**
	Gross farm product	3,062	4,478	3,614	3,671	4,135
	Gross non-farm product	38,900	46,327	56,535	67,154	77,396

TABLE 2
EXPENDITURE ON GROSS DOMESTIC PRODUCT AT AVERAGE 1966-67 PRICES
($ million)

	1972–73	1973–74	1974–75	1975–76	1976–77
Final consumption expenditure—					
Private	18,993	20,140	20,814	21,505	22,096
Government	3,423	3,665	3,900	4,140	4,350
Gross fixed capital expenditure—					
Private	4,969	5,362	4,811	4,875	5,037
Public	2,532	2,572	2,981	3,030	2,958
Increase in stocks	−178	1,033	497	−145	536
Statistical discrepancy	316	767	468	342	172
Gross national expenditure	*30,055*	*33,539*	*33,471*	*33,747*	*35,149*
Exports of goods and services	5,702	5,457	5,794	5,962	6,469
Less Imports of goods and services	4,909	6,396	6,462	6,110	6,867
Expenditure on gross domestic product	**30,848**	**32,600**	**32,803**	**33,599**	**34,751**
Gross farm product	2,452	2,571	2,820	3,028	3,102
Gross non-farm product	28,396	30,029	29,983	30,571	31,649

TABLE 3

NATIONAL INCOME AND OUTLAY ACCOUNT

($ million)

		1972–73	*1973–74*	*1974–75*	*1975–76*	*1976–77*
10	Wages, salaries and supplements	22,409	27,573	35,439	40,739	46,025
11*g*	Net operating surplus	11,965	14,263	14,032	16,998	20,750
	Domestic factor incomes	*34,374*	*41,836*	*49,471*	*57,737*	*66,775*
13	*Less* Net income paid overseas	417	317	469	653	700
12*a*	Indirect taxes	4,560	5,629	6,937	8,830	9,984
12*b*	*Less* Subsidies	324	319	321	313	296
	National income	*38,193*	*46,829*	*55,618*	*65,601*	*75,763*
14	*Less* Net transfers to overseas	212	281	197	343	420
	National disposable income	**37,981**	**46,548**	**55,421**	**65,258**	**75,343**
	Final consumption expenditure—					
1	Private	24,806	29,256	35,200	41,662	47,704
2	Government	5,416	6,748	9,143	11,308	13,211
15 to 20	Saving	7,759	10,544	11,078	12,288	14,428
	Disposal of income	**37,981**	**46,548**	**55,421**	**65,258**	**75,343**

NOTE. Items in all current price tables are numbered from 1 to 26, with or without the addition of a letter, and this system is used to identify the corresponding credit and debit entries in the accounts. In some cases the items correspond exactly, while in other cases an entry in one table is the sum of two or more entries in other tables; here the total is given a number, and the components have a number and a letter. In the remaining type of case all entries are given the same number and a distinguishing letter, because in this group one item is not the sum of one or more entries. The relationship between these items can still be traced through because the sum of all credit entries must equal the sum of all debit entries. A description of the numbered items can be found in *Australian National Accounts, National Income and Expenditure* 1975–76 (5204.0).

TABLE 4

NATIONAL CAPITAL ACCOUNT

($ million)

		1972–73	*1973–74*	*1974–75*	*1975–76*	*1976–77*
11*h*	Depreciation allowances	3,352	3,659	4,062	4,571	5,068
	Saving—					
15	Increase in income tax provisions	486	840	−311	491	794
16	Undistributed (company) income	1,054	1,015	123	949	2,509
17	Retained income of public financial enterprises	178	183	340	530	396
18	Household saving	3,880	5,475	7,704	7,436	7,807
19	General government surplus on current transactions	2,071	2,919	2,832	2,624	2,726
20	General government grants for private capital purposes	90	112	191	258	196
26	Extraordinary insurance claims paid	. .	. .	199	. .	. .
	Finance of gross accumulation	**11,111**	**14,203**	**15,140**	**16,859**	**19,496**
	Gross fixed capital expenditure—					
	Private—					
3*a*	Dwellings	2,129	2,590	2,456	3,239	4,013
3*b*	Other building and construction	1,364	1,591	1,978	2,032	1,983
3*c*	All other	3,100	3,781	4,309	5,055	6,040
4	Public enterprises	1,774	2,011	2,834	3,156	3,553
5	General government	1,691	1,952	2,829	3,477	3,693
	Total gross fixed capital expenditure	*10,058*	*11,925*	*14,406*	*16,959*	*19,282*
	Increase in stocks—					
6*a*	Farm and miscellaneous	−243	812	218	−63	68
6*b*	Private non-farm	−93	841	453	−160	1,047
7	Statistical discrepancy	407	1,118	789	664	345
21	Net lending to overseas	982	−493	−726	−541	−1,246
	Gross accumulation	**11,111**	**14,203**	**15,140**	**16,859**	**19,496**

TABLE 5

GROSS FIXED CAPITAL EXPENDITURE AND INCREASE IN STOCKS AT AVERAGE 1966-67 PRICES

($ million)

	1972–73	*1973–74*	*1974–75*	*1975–76*	*1976–77*
Gross fixed capital expenditure—					
Private—					
Dwellings	1,582	1,606	1,230	1,391	1,520
Other building and construction	993	1,009	990	881	765
All other	2,394	2,747	2,591	2,603	2,752
Total private	*4,969*	*5,362*	*4,811*	*4,875*	*5,037*
Public	2,532	2,572	2,981	3,030	2,958
Total	**7,501**	**7,934**	**7,792**	**7,905**	**7,995**
Increase in stocks—					
Farm and miscellaneous	−104	434	192	−52	22
Private non-farm	−74	599	305	−93	514
Total	**−178**	**1,033**	**497**	**−145**	**536**

TABLE 6

OVERSEAS TRANSACTIONS ACCOUNT

($ million)

	1972–73	*1973–74*	*1974–75*	*1975–76*	*1976–77*
9*a* Imports f.o.b.	3,808	5,754	7,652	7,924	10,348
9*b* Transportation	840	1,174	1,465	1,574	1,980
9*c* Travel	321	341	428	509	520
9*d* Government transactions	119	109	140	167	166
9*e* Other goods and services	236	271	302	260	239
9 *Imports of goods and services*	*5,324*	*7,649*	*9,987*	*10,434*	*13,253*
13*a* Property income to overseas	716	731	857	929	988
14*a* Personal transfers overseas	217	261	266	313	282
14*b* General government transfers overseas	255	295	360	388	412
21 Net lending to overseas	982	−493	−726	−541	−1,246
Use of current receipts	**7,494**	**8,443**	**10,744**	**11,523**	**13,689**
8*a* Exports f.o.b.	6,010	6,688	8,490	9,410	11,403
8*b* Transportation	571	680	947	1,024	1,260
8*c* Travel	123	159	206	229	280
8*d* Government transactions	69	67	75	77	87
8*e* Other goods and services	162	160	209	149	97
8 *Exports of goods and services*	*6,935*	*7,754*	*9,927*	*10,889*	*13,127*
13*b* Property income from overseas	299	414	388	276	288
Transfers from overseas—					
14*c* Personal	260	275	355	358	274
14*d* Extraordinary insurance claims	. .	. .	74	. .	. .
Current receipts from overseas	**7,494**	**8,443**	**10,744**	**11,523**	**13,689**

TABLE 7

MAIN AGGREGATES AT CURRENT PRICES, 1953-54 TO 1976-77

($ million)

	1	*2*	*3*	*4*	*5*	*6*	*7* (*1 to 6*)
	Final consumption expenditure		*Private gross fixed capital expenditure*	*Public gross fixed capital expenditure*	*Increase in stocks*	*Statistical discrepancy*	*Gross national expenditure*
Year	*Private*	*Government*					
1953–54 . .	5,860	874	1,320	808	109	−107	8,864
1954–55 . .	6,375	936	1,482	871	166	42	9,872
1955–56 . .	6,852	1,043	1,640	927	229	−52	10,639
1956–57 . .	7,327	1,086	1,717	950	−45	−158	10,877
1957–58 . .	7,682	1,121	1,858	998	56	−7	11,708
1958–59 . .	8,089	1,223	1,922	1,100	253	−71	12,516
1959–60 . .	8,874	1,312	2,191	1,214	168	111	13,870
1960–61 . .	9,416	1,410	2,415	1,256	478	42	15,017
1961–62 . .	9,703	1,529	2,328	1,402	−219	−74	14,669
1962–63 . .	10,400	1,634	2,580	1,440	253	−102	16,205
1963–64 . .	11,225	1,785	2,913	1,603	120	−96	17,550
1964–65 . .	12,144	2,051	3,398	1,861	561	22	20,037
1965–66 . .	12,922	2,390	3,657	2,052	109	−107	21,023
1966–67 . .	13,955	2,706	3,826	2,171	363	−216	22,805
1967–68 . .	15,259	3,054	4,164	2,356	145	−311	24,667
1968–69 . .	16,508	3,336	4,728	2,524	670	−322	27,444
1969–70 . .	18,172	3,646	5,162	2,744	447	−190	29,981
1970–71 . .	20,008	4,195	5,838	2,920	354	−324	32,991
1971–72 . .	22,207	4,754	6,301	3,285	−116	−113	36,318
1972–73 . .	24,806	5,416	6,593	3,465	−336	407	40,351
1973–74 . .	29,256	6,748	7,962	3,963	1,653	1,118	50,700
1974–75 . .	35,200	9,143	8,743	5,663	671	789	60,209
1975–76 . .	41,662	11,308	10,326	6,633	−223	664	70,370
1976–77 . .	47,704	13,211	12,036	7,246	1,115	345	81,657

	8	*9*	*10* (*7 + 8 — 9*)	*11*	*12*	*13*	*14*
Year	*Exports of goods and services*	*Imports of goods and services*	*Gross domestic product*	*Gross domestic product at factor cost*	*National income*	*Household income*	*Wages, salaries and supplements*
1953–54 . .	1,750	1,601	9,013	8,118	8,419	7,377	4,534
1954–55 . .	1,714	1,983	9,603	8,623	8,908	7,897	4,964
1955–56 . .	1,719	1,953	10,405	9,342	9,612	8,572	5,444
1956–57 . .	2,191	1,736	11,332	10,135	10,472	9,158	5,758
1957–58 . .	1,805	1,925	11,588	10,291	10,546	9,163	5,980
1958–59 . .	1,892	1,960	12,448	11,100	11,306	9,864	6,273
1959–60 . .	2,134	2,286	13,718	12,243	12,472	10,834	6,961
1960–61 . .	2,177	2,603	14,591	13,020	13,228	11,644	7,500
1961–62 . .	2,464	2,205	14,928	13,382	13,490	12,052	7,722
1962–63 . .	2,504	2,620	16,089	14,446	14,530	12,816	8,148
1963–64 . .	3,169	2,873	17,846	16,074	16,133	14,196	8,860
1964–65 . .	3,049	3,485	19,601	17,640	17,714	15,497	9,906
1965–66 . .	3,151	3,629	20,545	18,403	18,479	16,257	10,674
1966–67 . .	3,477	3,711	22,571	20,301	20,298	17,960	11,636
1967–68 . .	3,557	4,156	24,068	21,584	21,580	18,853	12,645
1968–69 . .	3,913	4,289	27,068	24,327	24,345	21,108	13,976
1969–70 . .	4,751	4,780	29,952	26,930	26,923	23,290	15,664
1970–71 . .	5,066	5,134	32,923	29,618	29,711	26,065	17,939
1971–72 . .	5,620	5,215	36,723	33,026	33,240	29,440	20,056
1972–73 . .	6,935	5,324	41,962	37,726	38,193	33,782	22,409
1973–74 . .	7,754	7,649	50,805	45,495	46,829	41,848	27,573
1974–75 . .	9,927	9,987	60,149	53,533	55,618	51,601	35,439
1975–76 . .	10,889	10,434	70,825	62,308	65,601	60,161	40,739
1976–77 . .	13,127	13,253	81,531	71,843	75,763	69,334	46,025

Sources of information

The most recent detailed annual estimates of national income and expenditure were published in *Australian National Accounts, National Income and Expenditure*, 1975–76 (5204.0). Preliminary estimates (less detailed) for 1976-77 were published earlier in a Budget Paper. Quarterly estimates are published in *Quarterly Estimates of National Income and Expenditure* (5206.0). A supplement to the December quarter 1976 issue of *Quarterly Estimates of National Income and Expenditure* (5207.0) presented historical quarterly series of gross domestic product and related aggregates at current and constant prices consistent with the 1975–76 Australian National Accounts bulletin.

Australian National Accounts, Gross Product by Industry at Current and Constant Prices, 1975 76 was published in August 1977. The Bureau also compiles input-output tables for the Australian economy. Tables for the year 1968–69 were published in *Australian National Accounts, Input-Output Tables* 1968–69 (5209.0) in November 1977.

The figures shown on pages 634–636 are as published in *Budget Paper, National Income and Expenditure*, 1976–77.

CHAPTER 24

OVERSEAS TRANSACTIONS

This Chapter includes statistics of overseas trade, balance of payments, and overseas investment by private investors; however, because of limitations of space, the statistics are mainly restricted to summarised form.

OVERSEAS TRADE

Constitutional provisions and legislation

Constitutional provisions

By the Commonwealth of Australia *Constitution Act*, Section 51 (1), the power to make laws with respect to trade and commerce with other countries was conferred on the Australian Parliament. Under Section 86 of the Constitution, the collection and control of duties of customs and excise passed to the Executive Government of the Commonwealth on 1 January 1901. Other references to trade and commerce are contained in Sections 87 to 95 of the Constitution (*see* pages 19-20).

Commonwealth Government Legislation

Commonwealth Government legislation affecting overseas trade includes the *Customs Act*, the *Customs Tariff* and the *Customs Tariff* (*Anti-Dumping*) *Act* 1975. The *Customs Tariff* provides the statutory authority for imposing the actual rates of duty operative from time to time, while the *Customs Tariff* (*Anti-Dumping*) *Act* provides protection for Australian industry against various forms of unfair trading.

The Customs Tariff

The first *Australian Customs Tariff* was introduced by Resolution on 8 October 1901, from which date uniform duties came into effect throughout Australia. The *Australian Customs Tariff* has been developed in conformity with the policy of protecting economic and efficient Australian industries and of granting preferential treatment to certain imports from countries of the Commonwealth and certain developing countries. Customs collections are a major source of revenue, but in its protective character the tariff has an important influence on the Australian economy. However, an extra duty known as 'primage' is imposed on some goods, generally of a luxury nature, for revenue purposes.

The present tariff provides for general and preferential rates of duty, and its structure is based on the 'Customs Co-operation Council Nomenclature' (formerly known as the 'Brussels Nomenclature') which has its origins in the Convention on Nomenclature for the Classification of Goods in Customs Tariffs, signed in Brussels on 15 December 1950. The Australian Customs Tariff has been based on the Customs Co-operation Council Nomenclature since 1 July 1965.

Preferential rates. Preferential rates generally apply to goods, the produce or manufacture of the United Kingdom, Ireland, Canada, New Zealand and Papua New Guinea, and to certain goods, the produce or manufacture of specified countries, provided that such goods comply with the laws in force at the time affecting the grant of preference.

Details of the rules covering the application of preferential rates may be found in Year Book No. 61, pages 316 and 317, or by reference to the *Customs Act* 1966 and associated regulations.

Declared preference countries or developing countries. Under the *Customs Act*, certain goods from specified countries are subject to special rates of duty. Countries to which these special rates apply are classed as 'declared preference countries' or 'developing countries'. A full list of these countries, and goods excluded from the special rates of duty normally applicable, is given in the *Australian Customs Tariff*.

General rates. General rates apply to goods from all countries which do not qualify for preferential rates of duty under a particular tariff classification.

By-law provisions. Customs By-laws and Ministerial Determinations are legal instruments, made in accordance with the provisions of the *Customs Act*, to authorise admission of imported goods either free of duty or at rates of duty lower than those normally applicable. The rates of duty that apply where concessional entry has been granted are contained in the *Customs Tariff* and are identified by the words 'as prescribed by by-law'. The most frequently used by-law provision is Item 19 in Schedule 2 to the *Customs Tariff* which allows duty free admission of goods, 'being goods a suitable equivalent of which that is the produce or manufacture of Australia is not reasonably available'. Normally, by-laws identify goods by general description, have neither quantity nor time limitations and may be used by any importer. Ministerial Determinations may be either in that form or, if it is necessary to limit the availability of concessions to ensure that the tariff protection accorded to local industry is maintained, be restricted in some way, e.g. quantity or time limitations. By-laws and notices of the making of Ministerial Determinations are published in the Commonwealth of Australia Gazette.

Anti-Dumping duties. The *Customs Tariff (Anti-Dumping) Act* 1975 provides protection for Australian industry against various forms of unfair trading. Under this Act dumping duty may be imposed on goods that are sold to Australian importers at a price which is less than the normal value of the goods, where this causes or threatens material injury to an Australian industry.

For details on the calculation of dumping duty *see* Year Book No. 61, page 320 or the *Customs (Anti-Dumping) Act* 1975.

Import controls

Import controls, by global tariff quotas or import licensing, are introduced to assist local industry following inquiry and report by the Industries Assistance Commission, the Textiles Authority or the Temporary Assistance Authority. At present, the textile, apparel, footwear, motor vehicle and steel industries are assisted by import control. Import licensing firmly limits import quantities, provides for penal and seizure action and may be selectively applied to particular goods or countries. As such, it differs from global tariff quotas which allow imports up to a predetermined level, above which additional duties may be imposed. At present, some 42 commodities or groups of commodities are subject to import controls. Further information on import controls may be obtained from the Bureau of Customs, Department of Business and Consumer Affairs, Edmund Barton Building, Barton, A.C.T., 2600.

Export controls and incentives

Export restrictions. Section 112 of the *Customs Act* provides that the Governor-General may, by regulation, prohibit the exportation of goods from Australia and that this power may be exercised by: (*a*) prohibiting the exportation of goods absolutely; (*b*) prohibiting the exportation of goods to a specified place; and (*c*) prohibiting the exportation of goods unless prescribed conditions or restrictions are complied with. Goods subject to this export control are listed in the Customs (Prohibited Exports) Regulations.

Exchange control—Banking Act 1959. As an integral part of the framework of exchange control, a control over goods exported from Australia is maintained under the provisions of Part III of the Banking (Foreign Exchange) Regulations to ensure that the full proceeds of such goods are received into the Australian banking system and that these proceeds are received in the currency and in the manner prescribed by the Reserve Bank of Australia. This action is complementary to that taken under other parts of the Banking (Foreign Exchange) Regulations to control the movement out of Australia of capital in the form of securities and currency.

Export incentives. The Commonwealth Government provides financial incentives to encourage exports. Under the *Export Market Development Grants Act* 1974 a new scheme (Export Market Development Grants Scheme) was introduced to operate for five years from 1 July 1974. The scheme administered by the Export Development Grants Board, which is responsible to the Minister for Overseas Trade, is designed to encourage exporters and potential exporters to seek out and develop overseas markets. The scheme covers exporters of primary products, industrial goods, services, know-how and industrial property rights, whether the exporter is an individual, partnership, company or marketing organisation.

The scheme operates by way of taxable grants, to a maximum of $100,000 (and in certain circumstances to $125,000), in relation to eligible expenditure incurred on overseas market research and development.

The Export Market Development Grants scheme replaces the previous Exports Incentive Grants and Market Development Allowance scheme.

Trade descriptions

The Commerce (*Trade Descriptions*) *Act* 1905. This Act, administered by the Bureau of Customs of the Department of Business and Consumer Affairs, gives power to require the application of a proper trade description to certain prescribed goods imported into or exported from Australia. Goods which must bear a prescribed trade description upon importation into Australia are specified in the Commerce (Imports) Regulations. As regards exports from Australia, marking requirements are prescribed in regulations issued under the Act and in relation to specified export commodities.

Government authorities

Industries Assistance Commission

The Industries Assistance Commission is a statutory authority whose general purpose is to advise the Commonwealth Government on the assistance which should be given to domestic industries. This advice is given in public reports which are based on public inquiries into the industries concerned. The Commission formally came into existence on 1 January 1974 as a result of the passing of the *Industries Assistance Commission Act* 1973.

Industries in the primary, secondary or tertiary sectors can be referred to the Commission by the Government, and numerous different forms of assistance can be examined by the Commission. In addition, matters not directly involving assistance, such as the reduction of import duties for the purpose of international trade agreements, can be referred to the Commission. The Act requires the Industries Assistance Commission to report annually to the Government on the operation of the Commission and on the general structure of industry assistance in Australia and its effect on the economy.

There are certain matters which the Minister is required to refer to the Commission for inquiry and report before action is taken by the Government. These are, basically, proposed variations in the long-term assistance afforded industries in the primary or secondary sectors of the economy. 'Long-term assistance' in this context means assistance which is provided by means of tariffs or other restrictions on imports; or financial assistance which extends over a period of two years or more. The Commission itself has the power to initiate inquiries into those industries whose assistance has not been reviewed for at least ten years in the case of industries assisted by means of duties on imports, or at least six years in the case of industries assisted by other means.

The Act states that the Commission shall consist of from five to nine Commissioners, appointed by the Governor-General for renewable terms of up to five years. It provides also for the appointment of Associate Commissioners, either for the purpose of particular inquiries or, like the Commissioners, for renewable terms of up to five years. The Commissioners are supported by an office which is staffed by members of the Commonwealth Public Service.

The Commission is required to hold public hearings during the course of its inquiries into individual industries. These hearings, which are advertised widely throughout Australia, are open to the public.

Temporary Assistance Authority

The *Industries Assistance Commission Act* 1973 provided for the creation of a Temporary Assistance Authority comprising not more than three persons. The function of the Temporary Assistance Authority is to inquire into and report on the need for urgent action to protect particular industries against import competition. This action can take the form of temporary duties or restrictions on imports. The Temporary Assistance Authority is required to report to the Minister within thirty days of being asked to undertake an inquiry. However, before taking action on the Authority's report, the Minister is required first to refer the question of any permanent change in protection against imports to the Industries Assistance Commission for inquiry and report. Temporary protection recommended by the Authority may operate for a period of up to three months after the date of receipt of the final report by the Industries Assistance Commission on the goods concerned.

Export Finance and Insurance Corporation

The Export Finance and Insurance Corporation was established by the Commonwealth Government in 1975 to provide Australian exporters with a specialised range of insurance guarantee and finance facilities not normally available from commercial sources. EFIC took over the functions of the Export Payments Insurance Corporation which had been operating since 1956.

Trade Agreements

Multilateral—General Agreement on Tariffs and Trade

The General Agreement on Tariffs and Trade (GATT), which came into force on 1 January 1948, is a multilateral trade treaty designed to facilitate trading relations between participating countries by reducing tariff and other barriers to the free interchange of goods. The Agreement provides a framework within which negotiations can be held to reduce barriers to trade, and a structure for embodying the results of such negotiations in a legal instrument.

Features of the Agreement are the schedules of tariff concessions participating countries have negotiated with each other, the application of most-favoured-nation tariff treatment among the participants, the avoidance of other trade discrimination, and a code of agreed commercial policy rules for international trading. Each participating country retains the right: (*a*) to impose new or increased duties for protective purposes except in respect of particular products where rates of duty have been bound against increase in negotiations under the Agreement; (*b*) by negotiation to modify or withdraw concessions formerly agreed; (*c*) to impose import restrictions to protect the balance of payments; (*d*) to take emergency action where any industry is endangered by reason of any obligation incurred under the Agreement.

There have been six main tariff negotiations under the provisions of the Agreement, and a number of smaller scale negotiations preceding the accession of individual countries. As a result, the tariff rates for a great many items entering into world commerce have been reduced and/or bound against increase. Australia has obtained tariff concessions from individual countries on a number of its principal or potential exports to them, as a result both of direct negotiation by Australia and of negotiation by other countries. In the latter case the benefits occurred through the operation under the Agreement of the most-favoured-nation principle.

The sixth series of trade negotiations, the Kennedy Round, was based on a plan for linear tariff cuts by industrial countries on all industrial products, with a minimum of exceptions, and on the reduction of non-tariff barriers to trade and the creation of acceptable conditions of access to world markets for agricultural products. It concluded in June 1967 after three years of negotiations. Concessions were negotiated on trade valued at over $36,000 million. The average reductions in tariffs on industrial goods was roughly one-third, while in agriculture the most important item was the agreement reached on the basis for a new world grains arrangement. Overall results were substantial, but were unevenly spread in that efforts to reduce trade barriers were very much more successful for manufactures than for primary products. In the post-Kennedy Round period, therefore, Australia placed particular emphasis on the work of the Committee on Agriculture, created in November 1967, to examine the problems in the agricultural sector.

An Anti-Dumping Code, negotiated during the Kennedy Round, came into force on 1 July 1968. The Code interprets the provisions of Article VI of the GATT and lays down rules on the determination, investigation and counter-action of injury caused by the dumping of goods on world markets. The rules aim to ensure the greatest possible uniformity of practice by signatory governments. Code signatories enact national legislation to give effect to the international agreement. This legislation embraces the provisions and wording of the Code, though to varying extents depending on the particular country. Australia acceded to the Code in November 1975.

A new round of multilateral trade negotiations (the seventh) was inaugurated at Tokyo in September 1973. Some 97 countries—both members and non-members of GATT—are participating in the negotiations which may be concluded in 1978. In a Declaration adopted at the Tokyo conference it was agreed that the principal areas of negotiation should be the reduction of tariff and non-tariff barriers (e.g. import restrictions, export restraints, minimum price regulations and subsidies) to trade in agricultural and industrial products; and safeguard measures against disruption of domestic industries by imports. The problems of developing countries are to be given special treatment. Australia is actively participating in all stages of the negotiations.

Up to the end of 1977 the contracting parties had held thirty-three sessions, nearly all in Geneva, to deal with matters arising from the administration of the Agreement. As a general rule the contracting parties meet once a year, although in a few instances they have met twice. In 1960 a Council of Representatives was established to undertake work, both of an urgent and of a routine character, between the regular sessions of the contracting parties. Some of the provisions of the Agreement were revised in 1954 and 1955. The revised Agreement contains tighter provisions on non-tariff barriers to trade, and allows more freedom for countries to revise individual tariff items which had been bound against an increase in tariff negotiations under the Agreement.

Since GATT has not been accepted definitively, the Agreement is at present being applied provisionally pursuant to a Protocol of Provisional Application. As at 1 November 1977, eighty-three countries were full contracting parties to the Agreement, three had acceded provisionally, and twenty-five applied the Agreement on a *de facto* basis. These 111 countries account for around 85 per cent of world trade.

Increasing attention has been focused in GATT on specific trade and development problems of developing countries, and in February 1965 a new Part IV of GATT, aimed at helping developing countries solve these problems, was introduced on a *de facto* basis. It entered legally into force in June 1966. The new Part IV embodies commitments to individual and joint action by contracting parties, aimed at ensuring that the developing countries can increasingly find the means to raise standards of living and promote rapid economic development through participating in international trade and achieving sustained growth of their export earnings.

Arising from their commitments under GATT, the developed countries have introduced the 'Generalised System of Preferences' (GSP) which offers tariff preferences on developing country products.

The Australian GSP, like those of other donors, is a unilateral, non-reciprocal and non-contractual provision of specified preferential tariff advantages. Accordingly, Australia reserves the right at any time to modify, withdraw, suspend or limit the preferential treatment for any item or with respect to any beneficiary.

Australia's system of tariff preferences was introduced in 1966 (the first in the world) and was substantially revised and expanded from 1 January 1974. It covers most dutiable manufactured, semi-manufactured and substantially processed primary products and offers margins of preference which are generally 10 to 15 percentage points below the general tariff rate. A further major review of the system took place in 1976.

The system is designed to assist developing countries to overcome the disadvantages they face in competing with third countries in the Australian market, provided there is no injury, or threat of injury, to Australian industry. A range of products where developing countries are already competitive on the Australian market is excluded from the system and a small number of additional products have been withdrawn from the system because of disruption to local industry.

Proposals for the addition or withdrawal of products are now referred to the Industries Assistance Commission for inquiry and report. This procedure gives all interested parties the opportunity to submit their views in evidence to a public inquiry.

Bilateral agreements

Information on Australia's bilateral trade agreements with overseas countries was published in Year Book No. 61, page 323. Since that edition, agreements have been concluded with Papua New Guinea and India, and a new agreement on tariffs and tariff preferences has been negotiated with New Zealand. Details of these agreements can be obtained from the Department of Trade and Resources, Edmund Barton Building, Kings Ave, Canberra, A.C.T. (The Department of Trade and Resources was formerly the Department of Overseas Trade.)

Trade services

Trade Commissioner Service

The stimulation of interest abroad in Australia's exports is an important government activity in which the Australian Trade Commissioner Service plays a prominent part. A brief account of the establishment and growth of the Trade Commissioner Service before the 1939-45 War is available in Year Book No. 51, page 496. Since the War the service has increased steadily; by early 1978 there was an establishment of 165 Trade Commissioners and Assistant Trade Commissioners in Australia and in 58 posts in 46 countries. The overseas trade representation is shown on page 95 in Chapter 5, International Relations.

Trade Commissioners are responsible for commercial intelligence in their territories. Particular facilities provided for Australian exporters and export organisations include: surveying market prospects; advising on selling and advertising methods; arranging introductions with buyers and agents; providing reports on the standing of overseas firms; advising and assisting business visitors; helping to organise and carry through trade missions, trade displays, newspaper supplements, and other promotion and publicity media; providing information on import duties, import licensing, economic conditions, quarantine and sanitary requirements, and other factors affecting the entry and sale of goods; and helping to attract desirable investment.

In some countries Trade Commissioners also participate in inter-governmental negotiations in the economic and commercial fields. In certain countries where there is no diplomatic or consular mission, Trade Commissioners are called upon to act as the Australian representative.

Trade Commissioners, Assistant Trade Commissioners and Trainee Trade Commissioners are drawn from both private enterprise and the public service. Applications for entry are invited periodically by public advertisement. Recruitment is generally at the Trainee Trade Commissioner and Assistant Trade Commissioner level and officers are promoted to higher grades or to Trade Commissioner as experience and performance warrant. In the majority of posts the Trade Commissioner is supported by an Assistant Trade Commissioner and, in some cases, also by another Trade Commissioner.

The Trade Commissioner Service is administered by the Department of Trade and Resources (as distinct from the diplomatic and consular services administered by the Department of Foreign Affairs), but in countries where there is an Australian diplomatic or consular mission it is the practice for Trade Commissioners to be attached to the mission and to hold an appropriate diplomatic or consular rank—Minister (Commercial), Commercial Counsellor or Commercial Secretary.

Trade Missions

Since 1954 the Commonwealth Government has sent trade missions abroad as part of its trade promotion program. The experience acquired has indicated the need for flexibility in techniques to suit particular products or markets. At present the following types of trade missions are in use:

Survey missions. These are organised to obtain precise knowledge about the export trade potential for specific products in one or more overseas markets. Such methods are used to explore export prospects in new or developing areas where commercial intelligence is not readily available or where a complex industry is involved and the industry requires special export knowledge.

Specialised and general trade missions. Arrangements are made for specific industries or groups of firms representing a number of industries to participate in a planned selling campaign in overseas markets with known sales potential. The mission visits the market, publicises its products and negotiates sales.

Up to the end of December 1977, Australia had sent overseas 130 trade and survey missions and 5 trade ships.

Trade displays, fairs, exhibitions and store promotions

For many years Australia has participated in numerous major trade fairs, exhibitions and displays in Africa, Asia, Europe, the Americas and the Pacific Area.

Initially, the emphasis was on participation in general trade fairs directed at the public and the general commercial community; however, with the development of export promotion techniques and the greater diversity of goods available for export, greater emphasis is now being placed on individual Australian trade displays and participation in specialised trade shows directed almost entirely at the business community. In addition, display rooms in Trade Commissioner offices are currently in use in Singapore, Kuala Lumpur, Manila, Hong Kong, Jakarta, Port Moresby and Suva.

Market assistance

The Commonwealth Government established a Market Assistance Section in the Department of Trade and Resources in January 1974 to advise and assist developing countries and countries with centrally planned economies in the marketing of their products in Australia. The section, which is located in Canberra, is supported by two experienced Australian Trade Commissioners—one located in Sydney and the other in Melbourne—to maintain contact with the commercial sector and provide direct practical assistance.

Collection and presentation of statistics

Source of data

Overseas trade statistics are compiled by the Australian Bureau of Statistics from documentation submitted by exporters or importers or their agents to the Bureau of Customs as required by the *Customs Act*.

Recording criteria

The statistics presented below are, with one exception, recorded on a *general trade* basis, i.e. total exports include both Australian produce and re-exports, and total imports comprise goods entered directly for domestic consumption together with goods imported into Customs warehouses.

The statistics of import clearances, however, are recorded on a *special trade* basis, i.e. clearances comprise goods entered directly for domestic consumption together with goods cleared into the domestic market from Customs warehouses.

Exports of Australian produce are goods, materials or articles which have been produced, manufactured or partly manufactured in Australia, except goods which were originally imported and have undergone only repair or minor operations which leave them essentially unchanged.

Re-exports are goods, materials or articles originally imported which are exported either in the same condition in which they were imported or after undergoing repair or minor operations which leave them essentially unchanged. 'Minor operations' include blending, packaging, bottling, cleaning, sorting, husking or shelling.

Total exports are the aggregate of exports of Australian produce and re-exports.

The statistics are not confined to goods which are the subject of a commercial transaction; generally, all goods imported into or exported from Australia are recorded. Among the items included are exports and imports on government account, including defence equipment. For exports, the value recorded for each item includes the value of the outside package, i.e. the outside package or covering in which the goods were exported. For imports prior to 1 July 1976, outside packages were included as a non-commercial transaction under Statistical Item 931.00.21; since 1 July 1976, however, the recorded value of imports includes the value of the outside package and, therefore, separate details on the value of outside packages are no longer available.

The following are excluded from overseas trade statistics:

(*a*) direct transit trade, i.e. goods being transhipped or moved through Australia for purposes of transport only;

(*b*) bunkers and stores supplied to foreign owned vessels and aircraft prior to departure overseas (these are shown separately as *ships' stores* statistics on page 660);

(*c*) migrants' and passengers' effects for which customs entries are not required; and parcels post exports and imports of small value, for which customs entries are not required;

(*d*) certain materials for intergovernmental defence and similar projects for which customs entries are not required;

(*e*) vessels and aircraft engaged in the transport of passengers or goods between Australia and other countries;

(*f*) vessels and aircraft purchased for use on overseas routes and any subsequent sales made of such vessels and aircraft;

(*g*) fish and other sea products landed in Australia or abroad directly from the high seas by Australian vessels.

State means the State in which export or import documentation was lodged with the Bureau of Customs. This may not necessarily be the same as State of export or entry of goods, or the State of production or final consumption. For example, goods for which entries were lodged at the Customs House, Port Adelaide, but which were forwarded interstate to Port Melbourne for export, would be recorded statistically as exports from Port Adelaide, i.e. from South Australia and not Victoria. The same method of recording (i.e. port of lodgement of the documentation) applies to imports of goods forwarded interstate following discharge from an overseas vessel.

Australian external territories

External territories under Australian administration are treated as separate countries in Australia's overseas trade statistics.

Period covered by the statistics

Exports and imports are recorded statistically in the month in which the documentation is processed. Normally this is within a few days of shipment or discharge of cargo. However, delays may occur in the processing of documentation.

Valuation

Exports. Goods sold to overseas buyers before export are valued at the free on board (f.o.b.) Australian port of shipment equivalent of the actual price paid to the exporter. Goods shipped on consignment are valued at the f.o.b. Australian port of shipment equivalent of the current price offering for similar goods of Australian origin in the principal markets of the country to which they are dispatched for sale. The value of outside packages is included.

Imports. The recorded value is the value for duty for Customs purposes. From 1 July 1976, a new system was introduced for valuing imports for Customs purposes. Under the new system, which is based on the internationally recognised Brussels Definition of Value, the value for duty is now based on the normal price, i.e. the price the goods would fetch at the time when the duty becomes payable on a sale in the open market between a buyer and a seller independent of each other. The goods are valued in the country of exportation, i.e. freight and insurance are excluded. The new basis of valuation differs from that used prior to July 1976 which, broadly, was based on the higher of actual selling price or current domestic value (in the country of export) plus charges involved in placing the goods f.o.b. the vessel at the port of export. Because of the change in the basis of valuation the recorded imports figures for 1976-77 are not comparable with previous years. It is estimated that if the previous basis of valuation had continued, the value of *total* imports would have been about 2 per cent higher than the recorded values on the new basis. For more details of the method of valuation used prior to 1 July 1976, refer to Year Book No. 61, page 330.

Leasing arrangements. The recorded value of goods exported or imported under leasing arrangements is defined according to the valuation procedures shown above and is not the value of the lease receipts or payments. However, for balance of payments purposes, large items of equipment under lease are normally excluded from export and import figures and, therefore, from the balance of trade since no change of ownership has occurred.

Quantity data

Where quantities are shown they are generally expressed in terms of the normal unit of quantity used in the appropriate industry as specified in the Australian Export and Import Commodity Classifications. Quantities are not tabulated in respect of statistical items for which there is no appropriate unit of quantity (e.g. a statistical item which covers a number of commodities that cannot be recorded under a uniform unit of quantity).

Merchandise and non-merchandise trade

Total trade is divided into merchandise and non-merchandise trade in accordance with international standards recommended by the United Nations. Merchandise trade is the equivalent of total exports or imports less certain items specified as non-merchandise. Complete descriptions of commodities classified as non-merchandise are contained in the *Australian Export and Import Commodity Classifications* (1203.0, 1204.0) published by the ABS.

Balance of trade and balance of payments

The balance of trade is derived by comparing statistics of exports on a balance of payments basis with statistics of imports on that basis. Therefore, the excess of the value of exports or imports, as shown on the basis of total trade in the table on page 647, does not represent the balance of trade. Statistics of the balance of trade for balance of payments purposes are derived by making certain adjustments, relating to scope, valuation and timing, to statistics of merchandise exports and imports. Information on these statistics will be found in the section relating to the balance of payments, page 666.

Country

For exports, country means the country to which goods were consigned at the time of export. Where the country is not determined at the time of export, goods are recorded as exported *for orders* and in those cases where it was found to be impossible to determine the destination, as *destination unknown*. For imports, country means the country of production as defined for Customs purposes.

Commodity classification

Exports and imports are classified according to the Australian Export and Import Commodity Classifications which are based on the Standard International Trade Classification, Revised (S.I.T.C. (R)), which is closely related to the Customs Co-operation Council Nomenclature used in the Australian Customs Tariff.

Note. Statistics for 1976–77 imports are preliminary and subject to revision.

Total overseas trade

The following table shows the total trade of Australia with overseas countries from 1972–73 to 1976–77. For details relating to years prior to 1972–73, see Year Book No. 61, page 333.

OVERSEAS TRADE
($m)

Year	*Exports*	*Imports*	*Excess of exports (+) or imports (−)*
1972–73 . . .	6,214	4,121	+2,093
1973–74 . . .	6,914	6,085	+ 829
1974–75 . . .	8,726	8,080	+ 646
1975–76 . . .	9,640	8,241	+1,399
1976–77 . . .	11,646	10,410	+1,236

Plate 46 below shows the overseas trade of Australia from 1959–60 to 1976–77.

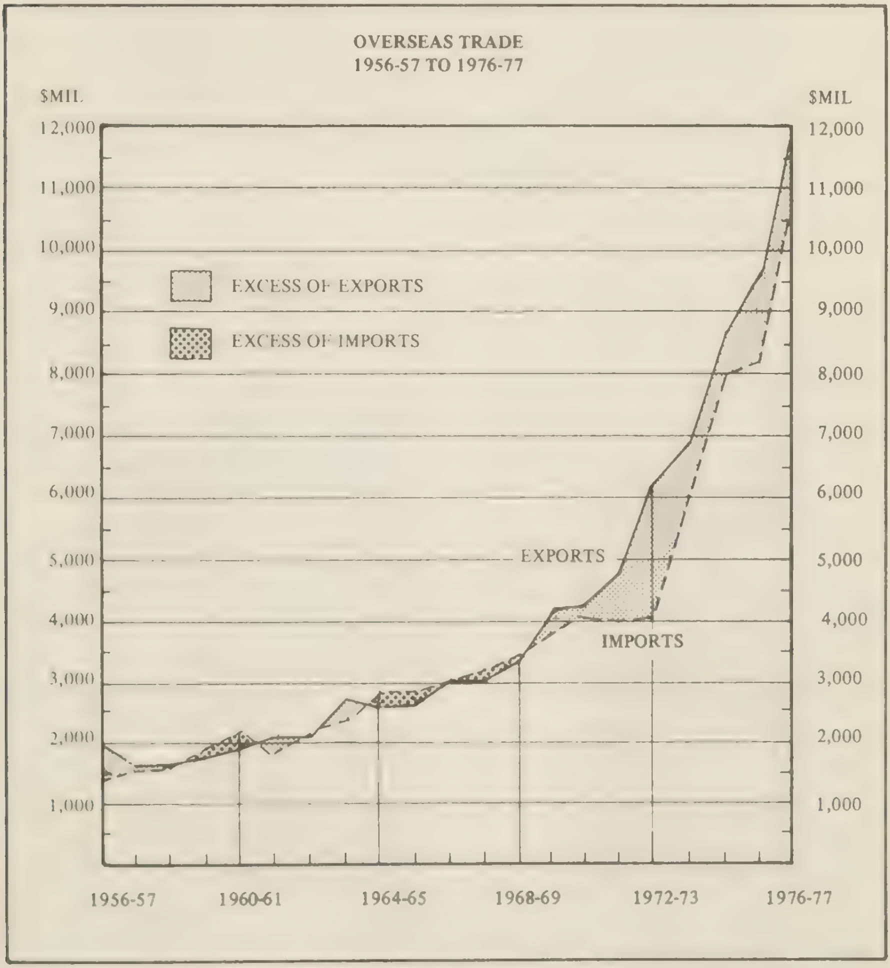


PLATE 46

The following table shows particulars of merchandise and non-merchandise trade for recent years.

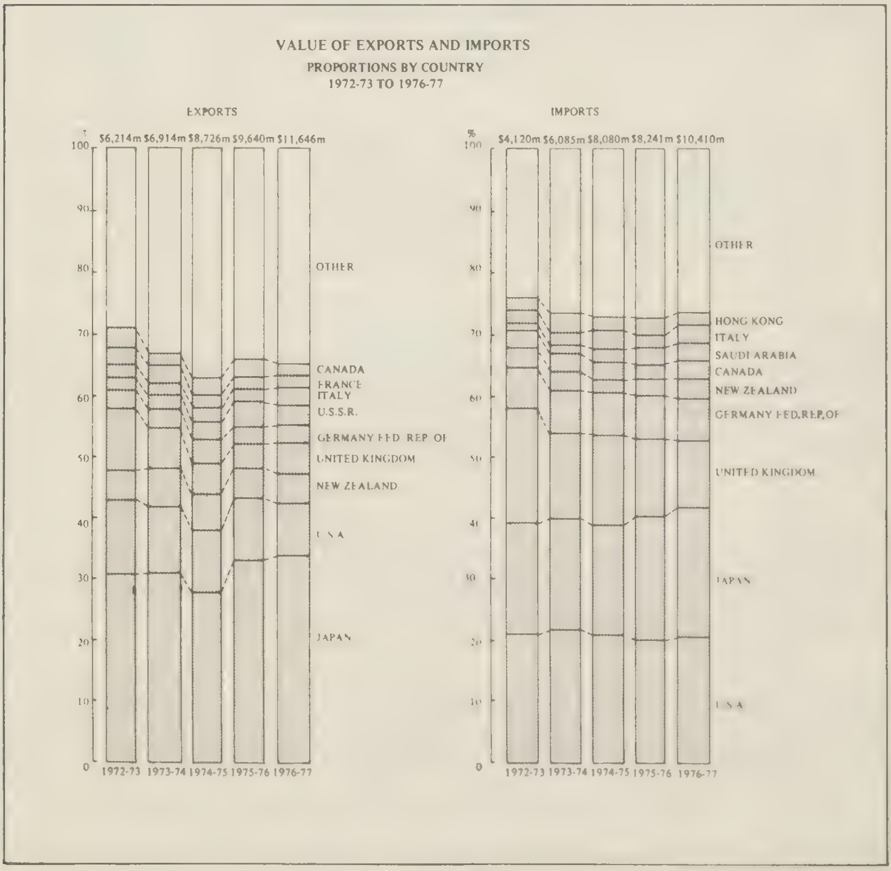
MERCHANDISE AND NON-MERCHANDISE TRADE
($'000)

EXPORTS

	Merchandise			*Non-merchandise*			
Year	*Australian produce*	*Re-exports*	*Total*	*Australian produce*	*Re-exports*	*Total*	*Total*
1972–73 . .	5,879,066	193,449	6,072,514	82,359	58,830	141,190	6,213,704
1973–74 . .	6,618,034	140,141	6,758,175	89,021	67,200	156,220	6,914,395
1974–75 . .	8,342,085	198,510	8,540,595	114,782	70,398	185,180	8,725,774
1975–76 . .	9,235,698	163,768	9,399,466	103,910	136,207	240,117	9,639,583
1976–77 . .	11,286,587	197,280	11,483,867	89,765	72,780	162,545	11,646,412

IMPORTS

Year	*Merchandise*	*Non-merchandise*	*Total*
1972–73 . . .	4,071,911	48,816	4,120,727
1973–74 . . .	6,027.091	57,913	6,085,004
1974–75 . . .	7,960,683	119,170	8,079,853
1975–76 . . .	8,153,421	87,172	8,240,593
1976–77 . . .	10,329,226	81,122	10,410,347



VALUE OF EXPORTS AND IMPORTS

PROPORTIONS BY COUNTRY

1972-73 TO 1976-77

PLATE 47

Classified summary of Australian overseas trade

The following table shows exports and imports according to divisions of the Australian Export and Import Commodity Classifications (based on the Standard International Trade Classification, Revised).

EXPORTS AND IMPORTS: DIVISIONS OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS
($'000)

Division No.	*Description*	*Exports*			*Imports*		
		1974–75	*1975–76*	*1976–77*	*1974–75*	*1975–76*	*1976–77(c)*
00	Live animals	26,314	28,587	60,389	15,542	15,503	17,337
01	Meat and meat preparations	443,767	667,897	885,820	4,275	1,593	3,330
02	Dairy products and eggs	165,611	200,019	199,215	12,453	15,924	19,525
03	Fish and fish preparations	69,186	81,294	136,448	62,767	69,912	109,996
04	Cereals and cereal preparations	1,459,646	1,376,740	1,348,337	8,037	9,245	12,492
05	Fruit and vegetables	99,208	103,964	110,468	76,862	54,776	73,635
06	Sugar, preparations, honey	660,706	584,778	654,814	8,228	10,203	11,100
07	Coffee, tea, cocoa and spices	13,303	12,060	21,831	93,257	81,378	184,718
08	Feeding stuff for animals	20,744	27,495	47,546	12,559	7,292	10,986
09	Miscellaneous food preparations	5,018	7,026	7,226	8,512	8.985	11,823
11	Beverages	15,010	16,321	15,877	33,017	40,855	52,282
12	Tobacco and tobacco manufactures	4,107	5,106	5,503	41,549	49,309	47,008
21	Hides, skins and fur skins, undressed	104,197	146,339	247,717	2,418	1,658	2,080
22	Oil seeds, oil nuts and oil kernels	12,505	18,339	4,360	7,260	5,861	7,151
23	Crude rubber (including synthetic and reclaimed)	1,086	1,649	1,281	30,973	38,509	44,399
24	Wood, timber and cork	9,192	9,734	9,561	85,284	102,494	143,814
25	Pulp and waste paper	560	342	347	70,992	55,035	66,872
26	Textile fibres and their waste	762,651	977,363	1,489,895	43,562	61,658	65,126
27	Crude fertilisers and minerals (except coal, petroleum and precious stones)	28,477	50,708	52,559	117,284	92,687	102,324
28	Metaliferous ores and metal scrap	1,202,306	1,350,687	1,623,240	9,802	9,275	13,563
29	Crude animal and vegetable materials n.e.s.	25,269	23,195	27,708	22,292	20,204	25,386
32	Coal, coke, and briquettes	733,423	1,069,786	1,291,550	1,851	871	1,740
33	Petroleum and petroleum products	161,787	161,665	205,798	722,362	805,977	993,843
34	Petroleum gases and other gaseous hydrocarbons	(*a*)	(*a*)	(*a*)	99	79	128
41	Animal oils and fats	50,070	63,510	68,399	578	673	432
42	Fixed vegetables oils and fats	2,465	1,277	1,209	36,825	37,896	48,177
43	Animal and vegetable oils, fats and waxes, processed	3,275	3,586	5,387	5,870	3,725	5,034
51	Chemical elements and compounds	352,147	482,165	621,114	302,517	275,139	357,150
52	Mineral tar and crude chemicals from coal, petroleum and natural gas	1,952	9,088	5,178	3,358	3,503	4,339
53	Dyeing, tanning and colouring materials	11,657	12,616	14,665	36,894	36,909	53,933
54	Medicinal and pharmaceutical products	32,631	32,388	44,058	105,837	91,737	101,725
55	Essential oils and perfume materials; toilet and cleansing preparations	18,460	14,240	15,168	30,694	30,513	39,673
56	Fertilisers, manufactured	2,789	3,567	305	13,283	9,111	21,055
57	Explosives and pyrotechnic products	3,056	2,659	2,886	6,982	6,273	7,447
58	Plastic materials, regenerated cellulose and artificial resins	27,404	23,464	30,924	188,076	166,528	225,337
59	Chemical materials, n.e.s.	28,803	39,040	47,782	98,356	89,573	114,628
61	Leather, leather manufactures, n.e.s. and dressed fur skins	4,450	7,669	19,758	15,030	18,616	18,471
62	Rubber manufactures, n.e.s.	7,744	5,032	6,222	124,187	111,588	138,888
63	Wood and cork manufactures (excluding furniture)	50,149	53,539	83,569	37,783	46,561	59,198
64	Paper, paperboard and manufactures	23,321	16,376	19,679	224,617	186,063	281,959
65	Textile yarn, fabrics, made-up articles	30,924	26,695	31,375	435,707	546,508	639,897
66	Non-metallic mineral manufactures n.e.s.	47,533	48,079	60,657	152,300	166,103	222,952
67	Iron and steel	381,128	319,558	435,002	251,683	154,654	216,300
68	Non-ferrous metals	502,763	439,762	595,361	51,666	32,558	47,233
69	Manufactures of metal, n.e.s.	102,465	86,040	90,384	202,652	197,677	266,029
71	Machinery, other than electric	235,659	223,487	235,974	1,357,830	1,338,752	1,706,216
72	Electrical machinery and apparatus	106,140	101,435	106,980	715,935	829,511	999,315
73	Transport equipment	223,175	170,841	140,339	985,493	1,008,993	1,274,061
81	Sanitary, plumbing, heating and lighting fixtures and fittings	3,195	2,157	3,177	16,505	17,911	24,700
82	Furniture	2,528	2,154	2,258	24,413	32,797	53,623
83	Travel goods, handbags, etc.	352	340	482	17,340	24,476	30,293
84	Clothing and accessories; articles of knitted or crocheted fabric	11,440	10,890	12,527	188,826	192,055	242,232
85	Footwear, gaiters and similar articles	1,448	1,126	1,159	50,361	54,774	74,262
86	Professional, scientific and controlling instruments; photographic and optical goods, watches and clocks	47,547	51,212	63,269	245,779	274,171	348,369
89	Manufactured articles, n.e.s.	58,140	51,902	57,326	417,417	449,132	580,498
9A	Commodities and transactions not classified according to kind(*b*)	141,709	172,478	213,801	124,650	159,654	105,140
	Total merchandise	*8,540,595*	*9,399,466*	*11,483,867*	*7,960,683*	*8,153,421*	*10,329,226*
9B	Non-merchandise	185,180	240,117	162,545	119,170	87,172	81,122
	Total	**8,725,774**	**9,639,583**	**11,646,412**	**8,079,853**	**8,240,593**	**10,410,347**

(*a*) Included in Division 9A. (*b*) Includes Division 34 (Exports only). (*c*) Import figures from 1976–77 are not comparable with previous years because of the change in the basis of valuation (*see* page 646).

Exports, by industrial group

The following table is designed to show fluctuations in exports of Australian produce dissected according to the main industry of the exports' origin, although any such classification is necessarily somewhat arbitrary.

EXPORTS BY INDUSTRIAL GROUP

	Value ($'000)			*Proportion of total exports (per cent)*		
Industrial group	*1974–75*	*1975–76*	*1976–77*	*1974–75*	*1975–76*	*1976–77*
Agriculture, horticulture and viticulture—						
Unprocessed	1,426,565	1,368,155	1,324,057	16.3	14.2	11.4
Processed	824,504	736,327	813,110	9.4	7.6	7.0
Total	2,251,069	2,104,482	2,137,168	25.8	21.8	18.4
Pastoral—						
Unprocessed	1,206,801	1,639,991	2,412,961	13.8	17.0	20.7
Processed	173,391	234,167	368,437	2.0	2.4	3.2
Total	1,380,192	1,874,158	2,781,398	15.8	19.4	23.9
Dairy and farmyard—						
Unprocessed	13,945	20,778	16,276	0.2	0.2	0.1
Processed	159,951	192,238	188,186	1.8	2.0	1.6
Total	173,896	213,016	204,462	2.0	2.2	1.8
Mines and quarries (except gold)—						
Unprocessed	1,813,374	2,340,383	2,791,642	20.8	24.3	24.0
Processed	499,390	437,287	596,497	5.7	4.5	5.1
Total	2,312,764	2,777,670	3,388,139	26.5	28.8	29.1
Fisheries—						
Unprocessed	65,282	76,076	128,142	0.7	0.8	1.1
Processed	6,049	7,300	15,620	0.1	0.1	0.1
Total	71,331	83,376	143,762	0.8	0.9	1.2
Forestry—						
Unprocessed	1,739	1,442	252	0.0	0.0	0.0
Processed	10,346	10,232	12,180	0.1	0.1	0.1
Total	12,085	11,674	12,432	0.1	0.1	0.1
Total primary produce—						
Unprocessed	4,527,706	5,446,825	6,673,330	51.9	56.5	57.3
Processed	1,673,631	1,617,551	1,994,030	19.2	16.8	17.1
Total	*6,201,337*	*7,064,376*	*8,667,361*	*71.1*	*73.3*	*74.4*
Manufactures	1,933,323	1,945,864	2,364,329	22.3	20.2	20.3
Refined petroleum oils	157,441	158,719	200,299	1.8	1.7	1.7
Gold	36,631	36,983	31,926	0.4	0.4	0.3
Unclassified	128,135	133,667	112,436	1.5	1.4	1.0
Total Australian produce	**8,456,867**	**9,339,608**	**11,376,352**	**96.9**	**96.9**	**97.7**
Re-exports	268,907	299,974	270,060	3.1	3.1	2.3
Total	**8,725,774**	**9,639,583**	**11,646,412**	**100.0**	**100.0**	**100.0**

The items enumerated indicate how arbitrary is the line necessarily drawn between primary produce and manufactures in any classification of this kind. The value of processed primary products exported includes some element of value added by the simpler processes of manufacture, while the value shown for manufactures exported necessarily includes the value of raw materials (primary produce) used in those manufactures.

Exports of major commodities

Commodity	*Unit of quantity*	*Quantity*			*Value ($'000)*		
		1974–75	*1975–76*	*1976–77*	*1974–75*	*1975–76*	*1976–77*
Aluminium and alloys, unworked	tonnes	64,065	69,074	75,533	37,536	44,009	60,084
Barley	,,	1,759,700	1,962,770	2,100,152	186,682	200,827	222,516
Butter	,,	32,619	72,173	32,092	33,833	63,659	38,114
Cars, passenger motor, assembled and unassembled	. .	. .	. .	. .	76,098	42,788	36,808
Cheese	tonnes	34,233	31,520	52,498	34,639	35,177	56,248
Coal (anthracite, bituminous and sub-bituminous) (except briquettes)	,,	32,652,450	30,260,405	34,431,726	721,466	1,062,545	1,281,944
Copper, ore and concentrates	,,	146,970	158,891	143,012	39,755	40,838	50,960
Copper, refined, unworked	,,	93,868	85,843	75,295	93,820	82,715	91,013
Crustaceans and mollucs (except canned or bottled)	. .	. .	. .	. .	62,531	73,542	118,551
Flour (wheaten) plain white	tonnes	236,716	218,992	155,867	48,993	38,458	26,166
Fruit, fresh, and nuts, fresh or dried	,,	124,620	118,318	72,979	28,905	28,924	22,436
Fruit, preserved and fruit preparations	. .	. .	. .	. .	40,885	39,015	48,191
Hides, bovine and equine (except calf and kip skins)	tonnes	118,087	163,723	174,647	37,999	66,735	119,423
Iron and steel ingots and other primary forms	,,	1,162,469	1,689,360	1,886,752	154,106	176,816	220,640
Iron ore and concentrates (except roasted iron pyrites)	,,	85,315,878	78,930,827	80,775,467	706,404	770,998	901,664
Iron, pig and cast	,,	558,507	593,051	763,421	62,012	40,478	56,813
Lead and lead alloys (including silver-lead) unworked	,,	282,217	310,443	296,570	132,038	111,129	165,506
Meat, fresh, chilled or frozen, beef—boneless	,,	386,522	494,757	600,613	302,143	452,648	589,032
Meat, fresh, chilled or frozen—bovine animals, other	,,	30,000	54,629	34,406	20,740	34,940	31,996
Meat, fresh, chilled or frozen—edible offals	,,	37,843	50,347	55,667	22,173	31,380	37,482
Meat, fresh, chilled or frozen—sheep, lambs and goats	,,	102,806	160,487	225,969	65,674	102,433	169,314
Milk and cream	,,	119,365	143,336	184,991	87,511	86,798	92,300
Petroleum products	. .	. .	. .	. .	145,994	144,105	190,336
Rice	tonnes	174,444	218,018	256,477	42,670	51,407	57,148
Skins, sheep and lamb, with wool on	,,	74,398	83,488	89,959	61,081	70,085	109,541
Sorghum, unmilled	,,	855,786	815,020	829,247	73,336	71,830	76,267
Sugar—from cane (except icing sugar)	,,	1,995,667	1,999,849	2,555,712	644,499	569,835	637,498
Titanium and zirconium ore and concentrates (except beneficiated ilmenite)	,,	1,245,772	1,261,644	1,866,049	105,260	127,141	137,876
Wheat (including spelt) and maslin, unmilled	,,	7,802,351	7,558,718	7,945,143	1,027,947	921,492	863,456
Wood chips	,,	2 565,614	2,335,706	3,233,602	46,437	50,551	79,497
Wool, carbonised—shorn and skin	,,	6,926	9,097	12,065	12,172	18,960	35,905
Wool, carded or combed (tops and other)	,,	4,974	8,513	11,693	16,291	25,329	43,615
Wool, greasy	,,	456,698	583,302	675,416	663,870	842,283	1,276,370
Wool, washed and scoured—shorn, skin and boiled	,,	31,357	35,901	41,132	59,410	73,021	118,029
Zinc, ore and concentrates	,,	403,822	424,582	379,113	58,872	62,224	58,950
Zinc and zinc alloys, unworked	,,	140,429	124,068	170,075	78,526	70,816	109,390
Total major commodities		. .	. .	. .	*6,032,308*	*6,725,931*	*8,231,079*
Total Exports		. .	. .	. .	**8,725,774**	**9,639,583**	**11,646,412**

Imports of merchandise, by economic class

The following table shows imports of merchandise into Australia classified according to economic classes of (i) purpose and (ii) degree of manufacture.

IMPORTS OF MERCHANDISE, BY ECONOMIC CLASS: AUSTRALIA

	Value ($'000)			*Proportion of total merchandise imports*		
	1974–75	*1975–76*	*1976–77(a)*	*1974–75*	*1975–76*	*1976–77(a)*
PURPOSE						
Producers' materials for use in—						
Building and construction	239,039	249,419	342,592	3.0	3.1	3.3
Rural industries	115,159	87,156	87,997	1.4	1.1	0.9
Manufacturing—						
Motor vehicle assembly	413,498	515,142	636,699	5.2	6.3	6.2
Other	2,511,731	2,441,998	3,166,400	31.6	30.0	30.7
Total producers' materials	*3,279,427*	*3,293,715*	*4,233,688*	*41.2*	*40.4*	*41.0*
Capital equipment—						
Producers' equipment	1,674,819	1,685,272	2,087,013	21.0	20.7	20.2
Transport equipment—						
Complete road vehicles and assembled chassis	526,472	502,876	701,079	6.6	6.2	6.8
Railway equipment, vessels and civil aircraft	144,400	114,081	132,543	1.8	1.4	1.3
Total capital equipment	*2,345,691*	*2,302,229*	*2,920,636*	*29.5*	*28.2*	*28.3*
Finished consumer goods—						
Food, beverages and tobacco	280,544	287,660	450,027	3.5	3.5	4.4
Clothing and accessories	232,989	243,204	307,416	2.9	3.0	3.0
All other	1,384,160	1,519,393	1,873,467	17.4	18.6	18.1
Total, finished consumer goods	*1,897,693*	*2,050,257*	*2,630,910*	*23.8*	*25.1*	*25.5*
Fuels and lubricants	234,314	282,613	341,231	2.9	3.5	3.3
Auxiliary aids to production	156,248	156,071	86,345	2.0	1.9	0.8
Munitions and war stores	47,309	68,536	116,415	0.6	0.8	1.1
Grand total	**7,960,683**	**8,153,421**	**10,329,226**	**100.0**	**100.0**	**100.0**
DEGREE OF MANUFACTURE						
Producers' materials—						
Crude	825,670	835,302	1,048,081	10.4	10.2	10.1
Simply transformed	545,213	500,788	616,472	6.8	6.1	6.0
Elaborately transformed	1,908,543	1,957,625	2,569,135	24.0	24.0	24.9
Finished consumer goods—						
Crude	61,733	64,470	128,731	0.8	0.8	1.2
Simply transformed	108,318	101,240	148,049	1.4	1.2	1.4
Elaborately transformed	1,727,642	1,884,547	2,354,130	21.7	23.1	22.8
Total imports—						
Crude	887,404	899,773	1,176,813	11.1	11.0	11.4
Simply transformed	989,844	992,261	1,128,708	12.4	12.2	10.9
Elaborately transformed	6,083,434	6,261,386	8,023,705	76.4	76.8	77.7
Grand total	**7,960,683**	**8,153,421**	**10,329,226**	**100.0**	**100.0**	**100.0**

(a) Import figures from 1976-77 are not comparable with previous years because of the change in the basis of valuation (*see* page 646).

Direction of Overseas Trade

Exports and imports, by country of consignment or of origin

The following table shows the value and percentage of Australian exports and imports according to principal country of consignment or origin. The proportions of Australian exports and imports by country of origin or consignment are shown graphically on plate 47 on page 648.

AUSTRALIAN EXPORTS AND IMPORTS, VALUE BY COUNTRY OF CONSIGNMENT OR ORIGIN

($'000)

	Exports			*Imports*		
Country	*1974–75*	*1975–76*	*1976–77*	*1974–75*	*1975–76*	*1976–77*
Association of South-East Asian Nations—						
Indonesia	175,251	161,331	180,508	18,693	24,535	50,174
Malaysia	194,370	172,735	224,266	58,800	82,116	113,522
Philippines	99,721	93,517	118,460	24,147	27,855	43,937
Singapore, Republic of	206,175	185,334	183,506	126,905	160,309	196,290
Thailand	49,444	46,438	65,044	16,150	22,150	27,219
Total ASEAN	*724,961*	*659,356*	*771,783*	*244,694*	*316,965*	*431,142*
Austria	3,357	2,956	4,463	34,526	26,503	30,012
Bahrain	24,702	25,580	29,313	97,289	86,921	68,348
Brazil	32,533	16,875	10,387	28,059	28,952	44,455
Canada	288,906	243,617	280,352	217,111	204,079	292,203
China—excl. Taiwan Province	247,518	219,791	184,685	81,139	68,942	103,151
—Taiwan Province only	80,950	114,143	134,401	113,103	134,242	212,770
Egypt, Arab Republic of	134,573	162,754	144,970	345	92	50
European Economic Community—						
Belgium-Luxembourg	73,543	128,849	171,304	73,026	69,969	83,821
Denmark	4,723	4,982	6,234	34,523	32,536	33,846
France	175,069	206,781	282,358	139,838	138,766	170,763
Germany, Federal Republic of	308,503	294,518	395,916	580,039	543,618	715,324
Ireland	2,814	4,685	4,096	15,042	12,989	20.762
Italy	150,042	209,644	342,007	208,818	192,230	264,235
Netherlands	145,685	174,778	173,467	123,399	129,258	158,818
United Kingdom	475,125	406,782	540,361	1,214,423	1,108,680	1,136,191
Total EEC	*1,335,504*	*1,431,018*	*1,915,744*	*2,389,107*	*2,228,046*	*2,583,760*
Fiji	60,542	51,655	68,002	10,080	10,510	9,531
Finland	2,426	2,188	4,066	39,821	31,014	57,131
Hong Kong	105,179	147,392	189,157	172,240	216,512	254,287
India	83,160	71,498	201,342	57,840	50,053	70,586
Iran	116,411	89,296	150,310	76,796	83,582	103,657
Iraq	44,899	55,377	64,272	92,519	69,059	59,074
Israel	3,785	7,428	11,834	14,168	17,089	24,600
Japan	2,456,206	3,192,131	3,955,629	1,417,639	1,609,561	2,149,722
Korea, Republic of	123,215	120,224	189,407	48,369	70,573	95,834
Kuwait	30,819	34,674	47,631	118,618	125,817	197,211
New Zealand	529,270	455,043	579,734	183,910	250,789	319,598
Norway	14,223	66,228	48,444	45,578	23,021	23,145
Pakistan, Islamic Republic of	86,490	22,552	23,140	5,386	5,968	6,836
Papua New Guinea	193,806	174,719	189,912	34,179	36,399	80,277
Poland	51,426	64,271	105,879	9,074	6,493	7,969
Romania	4,296	14,344	35,064	3,551	4,291	4,975
Saudi Arabia	27,863	39,539	54,237	171,136	236,020	281,655
South Africa, Republic of	97,861	90,958	69,415	43,930	36,890	56,374
Spain	35,103	82,870	69,499	41,238	36,680	47,277
Sri Lanka	45,148	35,487	21,368	12,834	11,744	17,426
Sweden	34,581	57,405	57,869	183,229	166,982	203,938
Switzerland	9,391	7,861	10,521	104,790	105,352	127,198
United States of America	831,520	968,322	1,009,381	1,668,160	1,656,319	2,161,630
U.S.S.R.	243,086	372,783	347,700	6,376	3,719	5,795
Viet Nam, Socialist Republic of	11,499	35,481	42,346	583	139	276
Yugoslavia	36,692	28,379	50,726	3,698	4,663	5,157
Other countries	519,407	445,442	553,207	391,428	271,252	270,034
'For Orders' and Country of origin or destination unknown	54,466	29,946	20,223	6,100	5,369	3,263
Total	**8,725,774**	**9,639,583**	**11,646,412**	**8,079,853**	**8,240,593**	**10,410,347**

Exports and Imports, by country of consignment and origin, and by description

The following table shows details of exports to and imports from principal countries, classified according to divisions of the Australian Export and Import Commodity Classifications.

EXPORTS AND IMPORTS BY COUNTRY: DIVISIONS OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1976-77

($'000)

Division No.	Description	*Belgium-Luxembourg*		*Canada*		*China—excl. Taiwan Province*	
		Exports	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*
00	Live animals	..	..	32	..	101	..
01	Meat and meat preparations	717	6	47,966	61	38	23
02	Dairy products and eggs	421	12	279	157	..	..
03	Fish and fish preparations	263	21	456	6,396	..	2,575
04	Cereal grains and cereal preparations	45,050	41	39	484	74,114	301
05	Fruit and vegetables	1,407	244	15,071	2,660	..	3,214
06	Sugar and sugar preparations and honey	32	25	91,880	32	43,746	90
07	Coffee, tea, cocoa, spices and manufactures thereof	566	34	126	1	58	2,047
08	Feeding-stuff for animals (except unmilled cereals)	70	91	14	..	1	14
09	Miscellaneous preparations chiefly for food	1	60	8	266	60	310
11	Beverages	..	54	1,837	105	5	33
12	Tobacco and tobacco manufactures	..	1	..	82	..	57
21	Hides, skins and fur skins, undressed	864	1	5	37	820	276
22	Oil-seeds, oil nuts and oil kernels	12	..	54	31	..	205
23	Crude rubber (including synthetic and reclaimed)	..	1,045	..	218	..	..
24	Wood, timber and cork	746	19	9	32,999	..	..
25	Pulp and waste paper	..	..	..	18,838	..	..
26	Textile fibres and their waste	36,716	214	3,868	2,274	14,606	1,406
27	Crude fertilisers and crude minerals (except coal, petroleum and precious stones)	..	328	1	34,083	64	1,338
28	Metalliferous ores and metal scrap	33,606	17	36,381	8,067	12,459	63
29	Crude animal and vegetable materials, n.e.s.	401	26	2,103	120	..	1,879
32	Coal, coke and briquettes	11,730	..	..	53	..	..
33	Petroleum and petroleum products	..	2,908	..	9,171	..	5,030
34	Petroleum gases and other gaseous hydrocarbons	(*a*)	..	(*a*)	..	(*a*)	..
41	Animal oils and fats	..	..	14	..	5,246	..
42	Fixed vegetable oils and fats	..	2	..	1,552	..	918
43	Animal and vegetable oils and fats, processed and waxes of animal or vegetable origin	4	4	80	..	78	8
51	Chemical elements and compounds	..	8,522	55,166	5,203	336	2,108
52	Mineral tar and crude chemicals from coal, petroleum and natural gas	319	4	..	..	..	..
53	Dyeing, tanning and colouring materials	35	453	59	482	5	41
54	Medicinal and pharmaceutical products	41	816	2,640	487	3	467
55	Essential oils and perfume materials; toilet, polishing and cleansing preparations	1	200	55	392	..	464
56	Fertilisers, manufactured	..	189	..	4,208	..	..
57	Explosives and pyrotechnic products	39	64	..	679	..	75
58	Plastic materials, regenerated cellulose and artificial resins	4	2,325	26	10,739	..	7
59	Chemical materials and products, n.e.s.	5	287	1,146	867	2	2,807
61	Leather, leather manufactures, n.e.s., and dressed fur skins	7	181	249	99	2	182
62	Rubber manufactures, n.e.s.	2	862	..	888	..	67
63	Wood and cork manufactures (except furniture)	8	72	15	2,192	1	180
64	Paper, paperboard and manufactures thereof	..	2,747	21	34,177	1	422
65	Textile yarn, fabrics, made-up articles and related products	..	7,335	89	10,837	..	39,634
66	Non-metallic mineral manufactures, n.e.s.	546	9,418	2,208	2,341	..	1,946
67	Iron and steel	17,771	680	4,270	803	27,572	39
68	Non-ferrous metals	17,058	356	2,182	6,904	5,081	59
69	Manufactures of metals, n.e.s.	1,086	1,800	1,960	10,263	10	956
71	Machinery (except electric)	815	26,103	3,255	43,036	14	716
72	Electric machinery, apparatus and appliances	155	7,027	1,046	11,967	52	466
73	Transport equipment	33	1,017	2,640	13,163	44	10
81	Sanitary, plumbing, heating and lighting fixtures and fittings	..	44	6	623	..	53
82	Furniture	..	129	37	979	28	585
83	Travel goods, handbags and similar articles	..	1	7	106	..	526
84	Clothing and clothing accessories; articles of knitted or crocheted fabric	296	76	237	1,137	5	20,835
85	Footwear, gaiters, and similar articles and parts therefor	..	..	13	173	..	6,004
86	Professional, scientific and controlling instruments; photographic and optical goods, watches and clocks	71	5,224	828	2,516	58	731
89	Miscellaneous manufactured articles, n.e.s.	247	1,905	1,055	7,818	..	3,875
9A	Commodities and transactions of merchandise trade, not elsewhere classified	(*b*)121	712	(*b*)434	713	(*b*)2	36
	Total merchandise	*171,267*	*83,704*	*279,867*	*291,481*	*184,613*	*103,083*
9B	Commodities and transactions not included in merchandise trade	37	117	485	722	72	68
	Grand total	**171,304**	**83,821**	**280,352**	**292,203**	**184,685**	**103,151**

(*a*) Included in Division 9A. (*b*) Includes Division 34.

EXPORTS AND IMPORTS BY COUNTRY: DIVISIONS OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1976–77—*continued*

($'000)

Div. No.	*China-Taiwan Province only*		*France*		*Germany, Federal Republic of*		*Hong Kong*		*India*	
	Exports	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*
00	77	..	6	46	..	96	3,172	..	172	
01	3,421	..	8,182	66	5,122	67	12,193	23	66	43
02	11,269	9	..	607	165	1,088	11,942	..	156	..
03	174	988	1,218	53	615	991	7,118	823	..	2,714
04	28,757	12	310	53	44,610	549	13,747	393	127,927	65
05	125	6,482	2,505	207	10,247	878	3,072	976	58	6,130
06	16	185	..	437	393	93	249	144	10	2
07	..	57	5	63	48	1,131	1,145	89	2	10,861
08	4,091	50	..	288	44	769	664	77	..	24
09	18	424	..	384	..	448	930	967	8	262
11	1	12	1	6,818	25	3,407	755	7	41	..
12	..	..	..	92	..	47	277	..	..	..
21	3,165	10	78,962	8	22,872	24	2,130	..	16	2
22	..	..	4	..	41	2	52	291	..	142
23	7	4	..	484	..	305	4	3	..	7
24	18	79	567	43	404	45	275	19	..	23
25	..	..	..	2	..	1	..	..	..	..
26	28,136	306	88,525	278	88,875	2,066	13,146	200	28,900	707
27	2,528	3	217	176	769	734	15	..	540	152
28	6,118	..	31,913	..	122,905	8	74	167	1,875	..
29	259	517	486	810	4,663	498	786	401	7	486
32	6,749	..	42,469	..	5,525	552	..	..	..	..
33	3	67	11	74	4	1,060	4,804	7	30	..
34	(*a*)	..	(*a*)	62	(*a*)	..	(*a*)	..	(*a*)	..
41	4,000	..	199	1	384	1	209	..	10,936	..
42	..	2	..	9	..	338	1	219	..	599
43	114	..	37	20	566	271	195	1	..	34
51	2,246	690	119	7,844	30,724	38,678	770	264	566	672
52	..	..	..	9	..	17	1	4	..	..
53	355	..	..	1,085	73	10,635	422	33	2	142
54	207	146	164	1,734	311	14,670	1,663	97	26	309
55	67	29	38	6,417	46	2,920	1,305	617	106	182
56	..	..	..	48	..	1,260	..	..	..	..
57	..	130	103	63	135	266	..	5	..	21
58	53	4,066	237	5,920	21	19,986	1,542	690	137	53
59	48	1	44	3,198	157	8,913	559	589	2	199
61	8	1,090	445	438	1,780	1,087	771	202	5	2,208
62	9	3,240	12	7,835	36	6,468	72	48	2	271
63	7	21,115	12	189	368	946	8	356	..	140
64	97	333	..	1,680	10	10,730	956	1,082	19	95
65	46	28,530	18	6,096	147	21,605	1,226	64,644	6	22,464
66	492	3,812	301	4,918	2,116	15,094	16,987	2,006	54	2,659
67	6,287	450	36	1,998	15,988	7,103	16,701	3	565	1,137
68	19,609	26	16,554	215	25,305	3,114	9,615	79	27,079	7
69	917	10,783	612	2,584	559	20,969	5,471	9,630	14	1,572
71	1,925	10,707	1,383	35,065	2,040	197,882	5,451	3,753	583	2,145
72	513	16,211	4,187	23,319	1,994	70,180	2,239	19,636	288	701
73	1,075	5,805	551	24,225	541	124,724	1,458	1,036	196	257
81	1	1,376	..	282	4	2,660	414	1,709	..	76
82	36	7,623	..	327	50	1,426	116	2,728	..	94
83	..	5,898	2	188	4	324	28	11,456	3	634
84	29	36,165	48	4,219	907	2,142	739	61,870	4	9,114
85	7	20,932	10	2,249	..	1,281	5	4,377	6	1,085
86	239	1,864	508	6,768	1,088	48,682	7,370	9,359	150	340
89	153	22,283	288	8,693	1,132	25,689	2,146	52,495	36	1,662
9A	(*b*)912	203	(*b*)130	1,277	(*b*)875	36,224	(*b*)845	428	(*b*)135	29
	134,385	*212,711*	*281,419*	*169,962*	*394,688*	*711,142*	*155,836*	*254,003*	*200,728*	*70,520*
9B	15	59	939	801	1,227	4,182	33,321	284	614	66
	134,401	**212,770**	**282,358**	**170,763**	**395,916**	**715,324**	**189,157**	**254,287**	**201,342**	**70,586**

(*a*) Included in Division 9A. (*b*) Includes Division 34.

EXPORTS AND IMPORTS BY COUNTRY: DIVISIONS OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1976–77—*continued*

($'000)

Division No.	Description	*Indonesia*		*Iran*		*Italy*	
		Exports	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*
00	Live animals	701	..	22,157	..	..	..
01	Meat and meat preparations	416	..	46,757	..	711	242
02	Dairy products and eggs	8,177	..	180	..	..	2,094
03	Fish and fish preparations	60	930	..	..	2,935	179
04	Cereal grains and cereal preparations	66,390	6	4,477	..	17,875	392
05	Fruit and vegetables	995	294	..	1,152	314	4,191
06	Sugar and sugar preparations and honey	496	..	126	6	6	620
07	Coffee, tea, cocoa, spices and manufactures thereof	114	36,577	..	..	..	452
08	Feeding-stuff for animals (except unmilled cereals)	29	..	1,079	..	..	32
09	Miscellaneous preparations chiefly for food	283	8	11	..	..	272
11	Beverages	523	..	3	..	1	5,310
12	Tobacco and tobacco manufactures	79	36	..	1	..	10
21	Hides, skins and fur skins, undressed	..	146	9	..	45,852	
22	Oil-seeds, oil nuts and oil kernels	..	65	..	..	..	..
23	Crude rubber (including synthetic and reclaimed)	..	4,155	..	..	..	5
24	Wood, timber and cork	9	1,069	..	..	5	27
25	Pulp and waste paper	83	..	..	..	..	..
26	Textile fibres and their waste	51	2	6,903	..	127,659	71
27	Crude fertilisers and crude minerals (except coal, petroleum and precious stones)	807	..	376	741	396	499
28	Metalliferous ores and metal scrap	39	..	404	..	41,364	..
29	Crude animal and vegetable materials, n.e.s.	84	83	1	18	920	178
32	Coal, coke and briquettes	17	..	..	..	40,540	..
33	Petroleum and petroleum products	5,873	4,463	374	100,108	22	28,135
34	Petroleum gases and other gaseous hydrocarbons	(*a*)	..	(*a*)	..	(*a*)	..
41	Animal oils and fats	106	..	..	..	223	1
42	Fixed vegetable oils and fats	10	..	..	..	..	512
43	Animal and vegetable oils and fats, processed and waxes of animal or vegetable origin	884	..	..	..	..	1
51	Chemical elements and compounds	3,634	113	10,766	..	..	4,023
52	Mineral tar and crude chemicals from coal, petroleum and natural gas	..	..	374	..	..	..
53	Dyeing, tanning and colouring materials	406	..	1	4	124	1,022
54	Medicinal and pharmaceutical products	601	306	4	..	11	1,245
55	Essential oils and perfume materials; toilet, polishing and cleansing preparations	302	135	69	2	41	533
56	Fertilisers, manufactured	..	..	..	..	..	1
57	Explosives and pyrotechnic products	252	..	..	..	..	88
58	Plastic materials, regenerated cellulose and artificial resins	2,627	1	135	..	..	2,472
59	Chemical materials and products, n.e.s.	1,777	2	37	..	5	415
61	Leather, leather manufactures, n.e.s., and dressed fur skins	10	18	..	..	6,424	890
62	Rubber manufactures, n.e.s.	387	140	..	..	5	3,091
63	Wood and cork manufactures (except furniture)	20	64	..	..	1	1,461
64	Paper, paperboard and manufactures thereof	187	1	21	..	7	2,848
65	Textile yarn, fabrics, made-up articles and related products	353	218	21	1,444	16	11,936
66	Non-metallic mineral manufactures, n.e.s.	2,594	57	63	4	81	18,041
67	Iron and steel	13,599	..	22,352	..	35,014	387
68	Non-ferrous metals	23,674	..	4,082	..	17,762	435
69	Manufactures of metal, n.e.s.	3,185	16	99	92	153	5,804
71	Machinery (except electric)	14,183	132	14,544	..	351	66,810
72	Electric machinery, apparatus and appliances	2,736	7	1,046	..	425	16,489
73	Transport equipment	4,260	82	33	..	112	23,232
81	Sanitary, plumbing, heating and lighting fixtures and fittings	403	..	..	5	1	2,921
82	Furniture	81	132	..	..	..	8,650
83	Travel goods, handbags and similar articles	11	35	..	..	2	1,551
84	Clothing and clothing accessories; articles of knitted or crocheted fabric	35	652	87	12	82	9,272
85	Footwear, gaiters, and similar articles and parts therefor	6	95	..	1	22	11,941
86	Professional, scientific and controlling instruments; photographic and optical goods, watches and clocks	757	1	155	2	663	5,289
89	Miscellaneous manufactured articles, n.e.s.	417	88	92	12	230	18,884
9A	Commodities and transactions of merchandise trade, not elsewhere classified	(*b*)11,311	19	(*b*)5,000	..	(*b*)288	367
	Total merchandise	*174,032*	*50,151*	*141,833*	*103,607*	*340,645*	*263,322*
9B	Commodities and transactions not included in merchandise trade	6,475	23	8,476	50	1,363	913
	Grand total	**180,508**	**50,174**	**150,310**	**103,657**	**342,007**	**264,235**

(*a*) Included in Division 9A. (*b*) Includes Division 34.

EXPORTS AND IMPORTS BY COUNTRY: DIVISIONS OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1976–77—*continued*

($'000)

Div. No.	*Japan*		*Korea, Republic of*		*Kuwait*		*Malaysia*		*Netherlands*	
	Exports	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*
00 .	50	..	385	..	10,734	..	867	..	..	..
01 .	172,928	53	5,768	..	12,660	..	5,558	..	2,946	1
02 .	42,975	..	206	..	2,428	..	12,511	..	83	1,660
03 .	56,925	26,972	..	2,444	..	..	176	10,013	87	1,297
04 .	315,988	363	188	7	16,133	..	39,334	18	2,819	971
05 .	8,817	917	30	648	883	..	1,659	409	1,707	1,132
06 .	275,383	440	38,886	374	154	..	66,154	80	7	379
07 .	9,895	392	..	4	1	..	3,344	3,904	261	4,580
08 .	26,269	1,491	29	1	176	..	1,501	122	..	5
09 .	290	733	..	21	44	..	385	96	..	444
11 .	224	163	13	24	84	..	352	..	4	295
12 .	3	..	..	1,521	..	..	3	..	91	9,897
21 .	30,741	..	4,863	..	..	..	156	..	3,477	4
22 .	1,418	10	33	5	..	..	33	1	6	11
23 .	..	2,559	..	..	..	..	2	21,350	..	349
24 .	11	77	..	..	..	..	..	36,957	820	4
25 .	..	1,474	..	..	..	..	3	..	..	..
26 .	455,872	9,423	50,049	33	5	..	11,106	195	37,876	1,552
27 .	29,937	3,872	3,896	32	..	..	869	..	645	131
28 .	992,395	1,664	27,195	1	..	..	21,944	..	46,800	..
29 .	3,638	1,434	363	70	1	..	340	295	850	477
32 .	1,048,552	54	40,288	..	..	..	22	..	23,556	..
33 .	34,826	930	..	5,756	..	197,211	5,383	4	12	8,306
34 .	(*a*)	2	(*a*)	..	(*a*)	..	(*a*)	..	(*a*)	..
41 .	18,560	4	5,902	..	7	..	980	..	1,099	..
42 .	1	78	..	1	3	..	..	9,975	..	527
43 .	744	175	115	15	..	..	233	23	54	1,504
51 .	74,784	75,183	132	1,069	..	..	2,809	98	10,759	8,125
52 .	2,589	41	..	..	..	..	..	..	..	2
53 .	179	2,994	1,132	..	..	..	678	5	275	1,384
54 .	2,078	3,669	368	406	57	..	1,349	238	317	1,619
55 .	1,577	648	45	10	5	..	890	67	20	587
56 .	..	2,117	..	..	..	..	..	11	..	532
57 .	..	74	..	61	..	..	..	..	..	..
58 .	379	39,313	..	333	7	..	1,057	307	54	4,507
59 .	6,147	4,897	141	4	9	..	1,319	48	77	7,041
61 .	235	796	17	309	..	..	91	6	225	36
62 .	16	51,584	..	2,468	..	..	187	2,775	1	651
63 .	79,539	1,734	1	3,181	..	..	31	3,935	55	245
64 .	322	25,810	43	1,241	3	..	2,207	14	122	4,549
65 .	797	148,251	146	16,291	16	..	785	9,032	2	4,726
66 .	9,532	53,644	17	2,661	31	..	642	116	521	1,462
67 .	39,687	141,314	4,911	6,661	3	..	3,422	1	33	84
68 .	74,232	6,577	2,813	1	141	..	9,439	74	31,861	402
69 .	5,617	58,514	93	4,379	497	..	2,724	1,683	310	1,548
71 .	3,163	231,402	514	1,984	935	..	6,147	2,892	996	13,338
72 .	3,372	453,942	177	6,022	2,170	..	4,330	1,446	2,957	22,903
73 .	1,316	592,114	134	963	172	..	2,529	253	480	32,412
81 .	17	2,984	..	43	4	..	160	63	..	461
82 .	90	2,525	..	855	12	..	34	943	1	460
83 .	39	1,464	..	2,943	..	..	9	234	2	13
84 .	662	8,733	..	17,314	108	..	381	2,576	71	107
85 .	..	1,674	..	3,956	..	..	6	1,374	..	24
86 .	2,111	76,838	111	1,426	36	..	1,076	353	250	12,033
89 .	1,163	103,086	135	10,138	109	..	1,288	1,320	246	4,762
9A .	(*b*)117,286	1,801	(*b*)77	102	(*b*)7	..	(*b*)1,086	58	(*b*)149	607
	3,953,371	*2,147,000*	*189,215*	*95,781*	*47,631*	*197,211*	*217,591*	*113.366*	*172,986*	*158,109*
9B .	2,258	2,722	192	54	..	..	6.674	156	481	709
	3,955,629	**2,149,722**	**189.407**	**95.834**	**47,631**	**197,211**	**224,266**	**113,522**	**173,467**	**158.818**

(*a*) Included in Division 9A. (b) Includes Division 34.

EXPORTS AND IMPORTS BY COUNTRY: DIVISIONS OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1976–77—*continued*

($'000)

Division No.	Description	New Zealand		Papua New Guinea		Saudi Arabia	
		Exports	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*
00	Live animals	2,051	10,872	69	..	9,507	
01	Meat and meat preparations	648	1,576	19,311	..	8,378	..
02	Dairy products and eggs	193	3,434	2,717	..	18,272	..
03	Fish and fish preparations	458	8,087	192	197	25	..
04	Cereal grains and cereal preparations	2,146	4,162	23,135	..	11,489	..
05	Fruit and vegetables	7,760	8,582	1,657	41	944	..
06	Sugar and sugar preparations and honey	18,985	2,155	6,370	..	73	
07	Coffee, tea, cocoa, spices and manufactures thereof	437	233	1,726	61,483		
08	Feeding-stuff for animals (except unmilled cereals)	138	30	1,291	..	137	..
09	Miscellaneous preparations chiefly for food	253	992	2,016	..	136	
11	Beverages	1,038	138	1,822	2	38	
12	Tobacco and tobacco manufactures	139	108	2,907	372	..	..
21	Hides, skins and fur skins, undressed	356	575	..	..	11	..
22	Oil-seeds, oil nuts and oil kernels	1,065	36	4	1,166		..
23	Crude rubber (including synthetic and reclaimed)	973	1	136	3,164	..	..
24	Wood, timber and cork	981	9,154	5	4,898	..	..
25	Pulp and waste paper	236	24,593	15	..	..	..
26	Textile fibres and their waste	1,300	20,217	806	..	17	..
27	Crude fertilisers and crude minerals (except coal, petroleum and precious stones)	1,688	142	369	1	..	..
28	Metalliferous ores and metal scrap	489	1,624	159	173	..	
29	Crude animal and vegetable materials, n.e.s.	1,632	2,159	101	6	14	..
32	Coal, coke and briquettes	202	8	3	..	..	..
33	Petroleum and petroleum products	89,356	79	9,438	16	..	281,652
34	Petroleum gases and other gaseous hydrocarbons	(*a*)	..	(*a*)	..	(*a*)	..
41	Animal oils and fats	29	4	1,311	..	..	..
42	Fixed vegetable oils and fats	711	..	269	1,925	..	..
43	Animal and vegetable oils and fats, processed and waxes of animal or vegetable origin	173	35	396	..	..	..
51	Chemical elements and compounds	53,211	651	807	4		
52	Mineral tar and crude chemicals from coal, petroleum and natural gas	1,379	1	225	..	..	..
53	Dyeing, tanning and colouring materials	5,808	504	982	..	..	..
54	Medicinal and pharmaceutical products	20,897	1,706	1,220	..	2	..
55	Essential oils and perfume materials; toilet, polishing and cleansing preparations	2,539	1,962	3,303	..	45	..
56	Fertilisers, manufactured	172	228	108	..	..	..
57	Explosives and pyrotechnic products	1,586	11	278	..		..
58	Plastic materials, regenerated cellulose and artificial resins	15,526	2,390	1,397	3	29	..
59	Chemical materials and products, n.e.s.	4,601	371	1,075	1	242	..
61	Leather, leather manufactures, n.e.s., and dressed fur skins	1,058	1,887	53	..	..	..
62	Rubber manufactures, n.e.s.	2,526	584	1,146	..	11	..
63	Wood and cork manufactures (except furniture)	1,801	2,171	138	3,674	20	..
64	Paper, paperboard and manufactures thereof	5,232	51,990	5,053	1	3	..
65	Textile yarn, fabrics, made-up articles and related products	20,103	38,475	1,132	10	167	..
66	Non-metallic mineral manufactures, n.e.s.	5,649	4,835	2,461	21	6	..
67	Iron and steel	50,396	722	9,440	119	740	..
68	Non-ferrous metals	44,160	1,178	1,669	20	..	..
69	Manufactures of metal, n.e.s.	19,104	12,705	6,838	284	1,113	..
71	Machinery (except electric)	41,574	18,569	20,908	22	1,271	..
72	Electric machinery, apparatus and appliances	28,184	20,777	8,836	8	952	
73	Transport equipment	58,678	9,913	8,710	47	162	
81	Sanitary, plumbing, heating and lighting fixtures and fittings	333	806	654	..	12	
82	Furniture	436	6,716	457	1	1	
83	Travel goods, handbags and similar articles	137	1,274	56	..		
84	Clothing and clothing accessories; articles of knitted or crocheted fabric	757	23,063	1,441	1	55	..
85	Footwear, gaiters, and similar articles and parts therefor	235	1,938	632	..	..	..
86	Professional, scientific and controlling instruments; photographic and optical goods, watches and clocks	14,368	2,264	1,983	8	131	
89	Miscellaneous manufactured articles, n.e.s.	16,311	10,905	3,841	132	89	
9A	Commodities and transactions of merchandise trade, not elsewhere classified	(*b*)4,677	815	(*b*)26,357	22	(*b*)11	..
	Total merchandise	*554,875*	*318,407*	*187,427*	*77,824*	*54,107*	*281,652*
9B	Commodities and transactions not included in merchandise trade	24,859	1,190	2,486	2,453	130	2
	Grand total	**579,734**	**319,598**	**189,912**	**80,277**	**54,237**	**281,655**

(*a*) Included in Division 9A. (*b*) Includes Division 34.

EXPORTS AND IMPORTS BY COUNTRY: DIVISIONS OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1976–77—*continued*

($'000)

Div. No.	*Singapore, Republic of*		*Sweden*		*United Kingdom*		*United States of America*		*U.S.S.R.*	
	Exports	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*
00	3,585	..	..	..	58	6,064	231	197	..	..
01	9,714	6	17,334	..	36,860	482	268,832	32	68,903	..
02	5,838	..	35	287	14	267	4,278	345	4,795	..
03	1,435	1,667	765	19	275	10,833	61,170	8,375	..	621
04	22,896	64	18	402	19,422	1,902	989	1,017	71,174	..
05	7,405	109	3,562	27	25,175	2,191	2,831	12,835	13	25
06	19,962	2	8	15	22,626	2,655	63,212	338	..	..
07	1,506	1,147	14	11	75	4,687	50	1,282	..	1
08	2,895	29	..	..	75	162	124	2,086	..	..
09	402	236	..	13	96	2,352	954	2,340	..	..
11	1,047	2	5	11	1,531	23,174	1,386	3,973	..	30
12	1	..	..	314	66	3,271	1	24,028	..	..
21	27	..	2,599	..	7,341	66	1,273	480	605	110
22	7	157	..	..	318	23	1,093	4,280	..	..
23	23	2,091	..	5	..	1,405	5	6,963	..	..
24	..	4,712	5	85	3,120	231	338	39,916	..	1
25	7	..	..	5,589	1	1	2	12,437	..	..
26	498	33	3,104	850	67,360	4,440	38,322	10,798	190,772	.
27	906	..	..	87	602	2,151	248	4,865	..	..
28	1,696	38	13,399	..	79,477	496	82,444	353	4,431	..
29	241	727	154	19	2,648	2,437	2,690	5,989	1	.
32	16	..	260	..	45,491	6	..	778	..	1
33	12,113	139,319	34	8	5	3,251	6,840	19,967	..	32
34	(*a*)	..	(*a*)	5	(*a*)	5	(*a*)	53	(*a*)	
41	1,842	..	4	..	1,580	71	265	122	..	.
42	1	310	..	151	..	178	..	12,539		..
43	190	..	..	9	407	889	406	1,026	..	..
51	1,575	61	2,585	1,364	10,187	50,349	251,436	117,183	6,572	1,194
52	90	773	..	..	..	442	..	3,041	..	..
53	1,575	78	1	38	202	13,568	29	13,905	..	..
54	882	56	..	3,170	3,973	30,500	652	24,148	..	7
55	1,237	28	43	32	145	7,799	176	12,974	..	8
56	9	..	..	17	..	54	..	11,197	..	..
57	12	30	94	60	252	2.328	1	2,830		
58	1,876	451	4	969	147	57,286	124	67,220		
59	1,427	10	142	863	1,553	24,466	22,950	55,228	.	
61	786	29	98	11	1,155	5,303	131	1,411	23	1
62	221	287	2	2,067	185	28,908	119	19,469	..	..
63	72	2,578	2	572	386	1,234	156	2,117	..	6
64	1,464	401	3	13,333	118	16,335	545	60,342	..	19
65	661	6,065	11	1,747	348	74,042	847	66,670	..	776
66	2,050	855	215	2,380	2,328	31,121	5,048	27,417	6	87
67	15,426	18	2	8,126	2,999	15,811	18,213	13,837	..	..
68	6,713	15	7,940	447	152,217	10,521	51,832	12,200	..	460
69	6,257	965	207	10,014	2,826	42,695	6,955	52,834	12	3
71	9,667	3,520	2,363	48,952	9,726	226,491	25,600	687,370	127	666
72	9 838	13,277	1,632	26,722	5,919	89,175	8,824	166,434	8	161
73	9,889	389	278	66,487	4,103	116,516	14,699	251,964	..	..
81	502	430	..	377	43	3,618	40	3,007		.
82	245	2,946	11	1,010	98	6.809	60	3,459		
83	28	308	1	199	42	1,275	25	755		
84	877	1,084	118	500	1,007	18,712	3,575	3,812		..
85	137	252	..	69	4	4,439	26	683		..
86	4,260	1,746	180	2,750	5,084	42,199	7,555	100.337	19	469
89	3,360	8,542	270	2,011	5,208	114,491	9,166	148,055	120	478
9A	(*b*)1,371	136	(*b*)173	674	(*b*)2,470	21,927	(*b*)20,045	36,080	(*b*)2	24
	176,758	*195,979*	*57,674*	*202,869*	*527,348*	*1,132,104*	*986,816*	*2,143,396*	*347.583*	*5,181*
9B	6,748	311	195	1,069	13,013	4,087	22,565	18,233	116	614
	183,506	**196,290**	**57,869**	**203.938**	**540.361**	**1,136.191**	**1,009.381**	**2,161.630**	**347.700**	**5,795**

(*a*) Included in Division 9A. (*b*) Includes Division 34.

Ships' and aircraft stores

Ships' and aircraft stores loaded on overseas ships and aircraft are excluded from exports. The value of these stores is shown in the table below.

STORES LOADED ON BOARD OVERSEAS VESSELS AND AIRCRAFT, 1974-75 TO 1976-77

($'000)

Stores	*1974-75*	*1975-76*	*1976-77*
Cigarettes, cigars and tobacco	764	1,038	1,749
Fuel, lubricating oil and lubricants	135,903	136,659	189,688
Foodstuffs for human consumption—			
Meats	2,463	2,075	2,210
Sugar	46	34	18
Milk and cream, preserved	38	23	62
Butter	40	43	94
Cheese	39	35	69
Eggs in shell	156	130	231
Seafoods	306	373	627
Prepared grains	234	169	200
Vegetables	679	503	699
Fruit	224	194	334
Tea	4	4	12
Other	1,544	1,777	1,691
Fodder	199	381	192
Alcoholic beverages	2,616	3,057	3,708
Other ships' stores	14,374	8,628	8,275
Total	**159,629**	**155,123**	**209,857**

Overseas trade by State

The following table shows the value of exports and imports for each State and Territory.

EXPORTS AND IMPORTS BY STATE, 1976-77

($'000)

State of lodgment	*Exports*	*Imports*
New South Wales	2,718,352	4,278,062
Victoria	2,216,237	3,665,911
Queensland	2,815,608	835,823
South Australia	789,872	629,375
Western Australia	2,596,110	829,414
Tasmania	338,657	94,622
Northern Territory	169,733	72,341
Australian Capital Territory	1,843	4,799
Grand Total	**11,646,412**	**10,410,347**

Total import clearances, dutiable clearances, and customs duties collected

The following table shows the value of total import clearances, total dutiable clearances, and the customs duties collected, together with the ratio of total dutiable clearances to total clearances.

TOTAL IMPORT CLEARANCES, DUTIABLE CLEARANCES, AND CUSTOMS DUTIES

		1972–73	*1973–74*	*1974–75*	*1975–76*	*(a)1976–77*
Total import clearances	$'000	4,132,983	6,015,035	7,976,280	8,174,645	10,304,237
Total dutiable clearances	,,	1,804,803	2,329,826	3,029,747	3,224,861	4,016,667
Total customs duties collected	,,	537,544	621,864	857,386	950,150	1,172,155
Ratio of dutiable clearances to total clearances	per cent	43.7	38.7	38.0	39.4	39.0
Ratio of duties collected to dutiable clearances	,,	29.8	26.7	28.3	29.5	29.2

(a) Clearance figures from 1976–77 are not comparable with previous years because of the change in the basis of valuation (see page 646).

Excise

Although excise goods have no immediate bearing on overseas trade, the rate of excise duty is in some cases related to the import duty on similar goods. Moreover, as the *Excise Acts* are administered by the Bureau of Customs, it is convenient to publish here the quantities of Australian produce on which excise duty has been paid. Particulars of customs and excise revenue are shown in Chapter 22, Public Finance. The following table shows the quantities of spirits, beer, tobacco, etc. on which excise duty was paid in Australia.

QUANTITIES OF PRINCIPAL EXCISABLE GOODS ON WHICH EXCISE DUTY WAS PAID: AUSTRALIA

Article	*1975–76*	*1976–77*
	'000 litre	'000 litre
Beer	1,863,075	1,891,299
	'000 l al	'000 l al
Spirits—		
Brandy	2,674	2,755
Gin	680	731
Whisky	743	671
Rum	1,389	1,529
Liqueurs	329	298
Vodka	698	760
Flavoured spirituous liquors	210	243
Other	6	10
Total spirits (potable)	6,730	6,998
	'000 kg	'000 kg
Tobacco	2,276	2,097
Cigars	108	93
Cigarettes—machine-made	27,743	27,846

Article	*1975–76*	*1976–77*
	'000 litre	'000 litre
Petrol—		
Aviation gasoline (by-law)(a)	57,705	56,381
Aviation gasoline—Other(a)	..	111
Gasoline	13,004,982	13,774,739
Total petrol	13,062,687	13,831,231
Mineral turpentine	..	..
Aviation turbine kerosene(a)	974,489	942,638
Other kerosene	..	5,000
Diesel fuel (as defined by by-law)	1,354,652	1,552,161
	doz. packs '000	doz. packs '000
Playing cards	141	127
	'000	'000
Cigarette papers and tubes	3,922,920	3,706,945
	matches '000	matches '000
Matches	29,302,853	26,655,026
	'000 tonnes	'000 tonnes
Coal	56,171	63,982
	'000 doz containers	'000 doz containers
Canned fruit	7,728	6,752

(a) Includes supplies to Commonwealth Government on which excise was paid.

PRIVATE FOREIGN INVESTMENT

Surveys of foreign investment have been conducted since 1947–48 to obtain particulars of certain types of private capital flows to and from Australia. The surveys, when supplemented by other information, provide statistics of foreign investment in enterprises in Australia and in Australian public authority securities repayable in Australian currency, as well as statistics of Australian investment in enterprises abroad and in foreign government securities. Particulars of investment income from most of those classes of investment are also obtained from the surveys.

Certain types of private foreign investment are not included in the statistics which follow. Investment in real estate (except when made through companies) and loans between Australian individuals and non-resident individuals are not covered. Nor are changes in short-term liabilities between exporters and importers in Australia and overseas covered, except in so far as they arise from exports and imports between branches or subsidiaries and their home offices or parent enterprises. In this case they are included in the figures of investment in branches or subsidiaries.

In the tables which classify investment in Australia according to country of origin, the investment is shown as an inflow from the country which is the immediate source of the capital. Income payable on foreign investment is classified on a similiar basis, i.e. it is classified to the country to which it is directly payable.

Remittances between Australia and foreign residents by Australian life insurance enterprises are regarded as capital transactions made to bring assets located in foreign countries into line with commitments in those countries, and are included as a flow of investment between Australia and foreign residents. Similar considerations apply to foreign life insurance enterprises with branches in Australia.

The following are explanatory notes relating to some of the terms used in the tables:

Branches. Offices in Australia of enterprises incorporated abroad *or* offices in separate foreign countries of enterprises incorporated in Australia. For the purposes of the survey, branches are included if the value of net liabilities to head office exceed $A10,000 or if the annual net profit or loss exceeds $A10,000. Australian branches of foreign enterprises *include* other Australian offices of foreign enterprises where a branch register is maintained in Australia, but *exclude* enterprises in Australia which are incorporated abroad but which have no business operations in Australia other than an account with a bank in Australia. Foreign branches of enterprises in Australia *exclude* foreign enterprises which are incorporated in Australia but which have no business operations abroad other than an account with a foreign bank. However, the short-term assets represented by the bank accounts abroad are included as Australian portfolio investment abroad for those companies included in the surveys of foreign investment.

Enterprises. Incorporated and unincorporated businesses and other organisations, *excluding* enterprises which have no business operations in a country other than an account with a bank in that country.

Direct investment. All investment in branches and subsidiaries by direct investors and other related enterprises.

Foreign residents. Any individuals, enterprises or other organisations domiciled in a country other than Australia *including* Norfolk Island and other external territories of Australia. Foreign branches and subsidiaries of enterprises in Australia are also regarded as being foreign residents.

Portfolio investment and institutional loans. Investment in enterprises other than direct investment, i.e. investment other than investment by related enterprises in branches and subsidiaries. Includes both equity and non-equity investment.

Subsidiaries. An *Australian subsidiary* of a foreign enterprise is an enterprise in Australia, other than a branch, in which:

(*a*) a single foreign resident (individual or enterprise) or a group of related enterprises in the one foreign country holds 25 per cent or more of the equity, or, if this condition does not apply,

(*b*) residents of one foreign country combined hold 50 per cent or more of the equity,

together with other enterprises in Australia in which the Australian subsidiary holds, directly or indirectly, more than 50 per cent of the equity.

A *foreign subsidiary* of an enterprise in Australia is a foreign enterprise other than a branch, in which an enterprise in Australia holds 25 per cent or more of the equity. In principal, foreign enterprises in which the combined Australian shareholding is 50 per cent or more would also be included, but it is not practicable to ascertain the total investment by Australian shareholders in individual foreign enterprises.

Undistributed profits of subsidiaries. These are the equity of direct investors in the net earnings of an enterprise during the year, less tax payable on those earnings and less dividends declared during the year whether relating to earnings of the same year or not. Net earnings are, in general, based on income for taxation purposes. However, certain deductions allowable for taxation purposes (e.g. mining exploration expenditure, Export Market Development Allowance, Investment Allowance for Manufacturing Plant, previous year's losses, etc.) are not deducted in calculating net earnings. Undistributed profits of Australian subsidiaries also include undistributed income accruing to the subsidiary from related enterprises in Australia.

Unremitted profits of branches. These comprise net earnings (after tax) during the year, less remittances of earnings to the head office during the year, irrespective of the year to which the earnings relate. Net earnings of branches are, in general, similar to those for subsidiaries. Also included is undistributed income accruing to the branch of other enterprises related to the branch.

More detailed statistics on foreign investment in Australia and Australian investment abroad are contained in the annual bulletin *Foreign Investment* (5305.0).

Private foreign investment in enterprises in Australia and investment income payable abroad by enterprises in Australia

The inflow of private foreign investment in Australia in recent years is shown in the next three tables.

INFLOW OF FOREIGN INVESTMENT IN ENTERPRISES IN AUSTRALIA BY TYPE OF INVESTMENT

($ million)

	Direct investment						
	Australian branches		*Australian subsidiaries*				
Year	*Unremitted profits (net)*	*Other direct investment*	*Undistributed profits (net)*	*Other direct investment*	*Total direct*	*Portfolio investment and institutional loans*	*Total*
1950–51 . .	19	20	26	69	134	3	137
1955–56 . .	13	25	68	118	224	10	234
1960–61 . .	5	51	108	211	375	98	473
1965–66 . .	15	86	110	301	512	182	694
1970–71 . .	10	147	233	510	900	655	1,555
1971–72 . .	17	127	201	523	868	587	1,455
1972–73 . .	41	47	260	30	377	99	476
1973–74 . .	22	21	403	153	599	−134	464
1974–75 . .	8	21	227	379	636	246	882
1975–76 . .	162	−43	454	−13	560	185	744

Minus sign (—) denotes outflow.

INFLOW OF FOREIGN INVESTMENT IN ENTERPRISES IN AUSTRALIA, BY COUNTRY

($ million)

Year	*United Kingdom*	*U.S.A.*	*Canada*	*Japan*	*E.E.C. (a)*	*Other countries*	*Total*
1971–72	391	562	40	463			1,455
1972–73	106	92	8	51	58	161	476
1973–74	87	188	18	75	85	11	464
1974–75	114	346	15	71	156	181	882
1975–76	264	380	22	80	−30	29	744

(a) Includes Belgium, Denmark, France, Federal Republic of Germany, Ireland, Italy, Luxembourg and Netherlands from 1972-73 onwards.

Minus sign (−) denotes outflow.

INFLOW OF DIRECT FOREIGN INVESTMENT IN ENTERPRISES IN AUSTRALIA, BY INDUSTRY GROUP

($ million)

Year	Primary production(a)	Manufacturing	Other industries	Total
1971–72	354	185	330	868
1972–73	72	72	234	377
1973–74	64	246	289	599
1974–75	64	278	294	636
1975–76	33	223	304	560

(a) Includes mining.

The next three tables show investment income payable abroad by enterprises in Australia.

INVESTMENT INCOME PAYABLE ABROAD BY ENTERPRISES IN AUSTRALIA BY TYPE OF INCOME

($ million)

Year	Investment income payable abroad by enterprises in Australia on—							Grand total
	Direct investment				Portfolio investment and institutional loans			
	Undistributed income	Remitted profits and dividends payable	Interest payable	Total	Dividends	Interest	Total	
1950–51	45	36		81	8	..	8	89
1955–56	81	78		158	13	1	13	172
1960–61	113	103		213	20	3	20	239
1965–66	125	136		261	35	14	49	310
1970–71	243	192	85	519	57	48	105	624
1971–72	218	197	108	523	63	72	135	657
1972–73	301	296	108	705	69	83	152	857
1973–74	425	313	110	848	72	91	163	1,012
1974–75	236	356	133	724	71	138	209	933
1975–76	616	398	129	1,143	69	166	235	1,377

INVESTMENT INCOME PAYABLE ABROAD BY ENTERPRISES IN AUSTRALIA BY COUNTRY

($ million)

Year	United Kingdom	U.S.A.	Canada	Japan	E.E.C. (a)	Other countries	Total
1971–72	238	315	28	76			657
1972–73	340	404	27	19	16	52	857
1973–74	383	491	27	20	14	77	1,012
1974–75	286	528	16	23	1	79	933
1975–76	463	664	47	40	47	116	1,377

(a) Includes Belgium, Denmark, France, Federal Republic of Germany, Ireland, Italy, Luxembourg and Netherlands from 1972–73 onwards.

Minus sign (−) denotes outflow.

DIRECT INVESTMENT INCOME PAYABLE ABROAD BY ENTERPRISES IN AUSTRALIA, BY INDUSTRY GROUP
($ million)

Year	*Primary production(a)*	*Manufacturing*	*Other industries*	*Total*
1971–72 . . .	111	236	175	523
1972–73 . . .	185	281	239	705
1973–74 . . .	274	321	253	848
1974–75 . . .	303	270	150	724
1975–76 . . .	325	410	408	1,143

(*a*) Includes mining.

Australian investment in and investment income receivable from foreign enterprises

The outflow of Australian investment in enterprises in recent years and a classification by country in which the capital was invested are shown in the following two tables.

OUTFLOW OF AUSTRALIAN INVESTMENT IN FOREIGN ENTERPRISES BY CATEGORY OF INVESTMENT
($ million)

	Direct investment						
	Foreign branches		*Foreign subsidiaries*			*Portfolio investment and institutional loans(a)*	
Year	*Unremitted profits (net)*	*Other direct investment*	*Undistributed profits (net)*	*Other direct investment*	*Total*		*Grand total*
1950–51 . .	5		n.a.	2	7	−3	4
1955–56 . .	1	9	5	3	18	−3	15
1960–61 . .	2	7	5	5	19	−9	10
1965–66 . .	2	4	16	17	38	1	39
1970–71 . .	−7	14	26	40	72	1	73
1971–72 . .	−7	21	36	70	121	. .	121
1972–73 . .	−10	10	83	14	97	15	112
1973–74 . .	−3	56	103	75	231	18	249
1974–75 . .	−12	16	39	62	105	43	148
1975–76 . .	2	11	58	71	142	20	162

(*a*) Prior to April 1975, excludes portfolio investment in Papua New Guinea other than some long-term trade credit and short-term assets; between April and December 1975, includes transactions with Papua New Guinea where amounts involved are denominated in Kina; from January 1976, includes all portfolio investment in Papua New Guinea.

Minus sign (−) denotes inflow.

OUTFLOW OF AUSTRALIAN INVESTMENT IN FOREIGN ENTERPRISES BY COUNTRY
($ million)

Year	*United Kingdom*	*New Zealand*	*U.S.A. and Canada*	*Papua New Guinea(a)*	*Other countries*	*Total*
1971–72 . . .	−11	26	11	63	32	121
1972–73 . . .	−2	23	20	(*b*)	(*c*)72	112
1973–74 . . .	40	28	39	(*b*)	(*c*)142	249
1974–75 . . .	37	50	10	−7	59	148
1975–76 . . .	24	12	46	36	43	162

(*a*) Prior to April 1975, excludes portfolio investment other than some long-term trade credit and short-term assets; between April and December 1975, includes transactions with Papua New Guinea where amounts involved are denominated in Kina; from January 1976, includes all portfolio investment in Papua New Guinea. (*b*) Not available for publication. (*c*) Includes Papua New Guinea.

Minus sign (−) denotes inflow.

The next two tables show income from direct investment receivable by Australian enterprises from foreign enterprises, and the countries from which it is receivable.

DIRECT INVESTMENT INCOME RECEIVABLE FROM ABROAD BY ENTERPRISES IN AUSTRALIA, BY TYPE OF ENTERPRISE AND TYPE OF INCOME(a)

($ million)

	Foreign branches		*Foreign subsidiaries*		
Year	*Unremitted profits (net)*	*Remitted profits and interest*	*Undistributed profits (net)*	*Dividends and interest receivable*	*Total*
1950–51 . . .	n.a.	4	n.a.	2	6
1955–56 . . .	1	4	5	5	15
1960–61 . . .	2	5	5	7	19
1965–66 . . .	2	4	16	16	38
1970–71 . . .	−7	10	26	27	56
1971–72 . . .	−7	7	36	34	70
1972–73 . . .	−10	16	83	36	124
1973–74 . . .	−3	18	103	69	187
1974–75 . . .	−11	23	39	62	113
1975–76 . . .	2	24	58	−48	132

(a) Details are not available of income receivable in Australia on either portfolio investment and institutional loans or on Australian holdings of foreign government securities.

Minus sign (—) denotes inflow.

DIRECT INVESTMENT INCOME RECEIVABLE FROM ABROAD BY ENTERPRISES IN AUSTRALIA, BY COUNTRY(a)

($ million)

Year	*United Kingdom*	*New Zealand*	*U.S.A. and Canada*	*Papua New Guinea(a)*	*Other countries*	*Total*
1971–72 . . .	8	14	3	22	23	70
1972–73 . . .	18	21	3	(b)	(c)83	124
1973–74 . . .	25	35	2	(b)	(c)125	187
1974–75 . . .	17	28	4	(b)	(c)63	113
1975–76 . . .	23	33	6	(b)	(c)70	132

(a) Details are not available of income receivable in Australia on either portfolio investment and institutional loans or on Australian holdings of foreign government securities. (b) Not available for publication—included in 'Other countries'. (c) Includes Papua New Guinea.

BALANCE OF PAYMENTS

Balance of payments estimates provide a systematic record, in money terms, of transactions between residents of a country and residents of the rest of the world (non-residents) for a given period. Such a record is essential to the examination of influences which external factors have on the domestic economy. These estimates have always assumed a particular importance in Australia as the Australian economy is subject to fairly large fluctuations in export income and is also affected in important respects by variations in the level of foreign investment and the demand for imports.

Official estimates of Australia's balance of payments for the period 1928–29 to 1930–31 were included in the Appendix to Year Book No. 24, 1931. Except for the war years (1939 to 1945), estimates have since been published at least annually. Detailed estimates and a description of the various items included are provided in the annual bulletin *Balance of Payments* (5303.0). Somewhat less detailed estimates of the principal current account items and capital movements are published in the quarterly bulletin *Balance of Payments* (5302.0), and a summary statement of the main balance of payments aggregates, *Balance of Payments* (*Preliminary*), is issued monthly (5301.0).

Transactions are recorded in the balance of payments when ownership of goods changes, services are rendered, income and transfer payments are made and financial assets or liabilities are created or extinguished. The Australian balance of payments is divided into a current account and a capital account, the former covering transactions in goods, services, income and transfers, and the latter covering the creation or extinction of financial assets or liabilities through such activities as government loans raised overseas, private direct investment and portfolio investment. Included in the capital account are movements in the levels of financial assets held in the form of official reserves.

The balance of payments is a double entry accounting statement based on rules of debit and credit so that, conceptually, credits should exactly offset debits. However, errors and omissions in the estimates and timing discrepancies in the recording of transactions and their offsets occur. It is therefore necessary, to preserve the identity between the two accounts, to introduce a balancing item which, although it is included in the capital account, reflects errors, omissions and timing discrepancies in both the current and capital accounts.

Current account

The current account is sub-divided into transactions in goods and invisibles. Transactions in goods consist of exports and imports, the difference between the two being the balance of trade. Exports and imports comprise all movable goods which undergo a change of ownership between residents and non-residents. Recorded trade statistics based on customs warrants provide the basic source of data; however these have to be adjusted in respect of valuation, timing and coverage to bring them onto a balance of payments basis. In brief, these adjustments include deducting those goods from recorded trade which, although they have crossed the customs frontier, have not changed ownership, and adding to the recorded trade figures those goods which have changed ownership but have not crossed the customs frontier. Goods crossing the customs frontier without changing ownership for the purpose of sale at a later date (e.g. consignment goods) are removed from trade data and added back later when they are sold. The value of recorded imports is also adjusted to allow for overstatement resulting from some imports being recorded, for customs purposes, at values higher than the transactions value required for the balance of payments.

Invisibles transactions include the sale and purchase of services, property income receivable from and payable to overseas, and transfer payments, both government and private. In most cases, credit entries represent the receipt of foreign exchange and debit entries the payment of foreign exchange, although there are some exceptions to this general rule: undistributed income, for example, is included as an imputed transaction in both the current and capital accounts, and transfers in kind (eg aid in the form of food shipments) also occur which do not result in movements of foreign exchange. The item Gold Production (net) also requires an explanation: reflecting the previous significance afforded to gold as an international medium of exchange, this item showed, for the period prior to 1 January 1976 (from which date the treatment was changed), the net value of gold exports (gold transactions being excluded from the visible trade items) plus the value of newly-produced gold retained by the Reserve Bank as part of Australia's official reserve assets.

Sources of data for the invisibles items vary. They include ABS surveys (transportation, defence expenditure, remitted profits, dividends and interest), data from trading banks on foreign exchange transactions (travel, miscellaneous services, royalties and copyrights, most private transfers), and data from government departments (most of the Government items, interest on public authority debt, foreign aid, social security cash benefits).

The balance on Current Account gives the net result of the trade and invisibles transactions and is derived by summing the balance of trade, invisible credits and invisible debits.

Capital account

Capital account transactions may be defined as those involving claims to money and titles of investment between residents of Australia and those of another country. They include government loan-raising operations overseas, investment by overseas residents in Australian companies, the investment by Australian residents in companies overseas, and changes in the level of Australia's foreign reserves.

In the capital account, transactions are recorded on a net basis, i.e. according to the net effect of all debit and credit entries relating to each item. Thus entries on the credit side represent a net increase in non-residents' assets in Australia or a net decrease in Australian assets overseas, while debit entries represent a net decrease in non-residents' assets in Australia or a net increase in Australian assets overseas.

Capital account transactions are grouped according to the sector of the Australian party to the transactions. The government sector, therefore, includes all capital transactions of central, State, local and semi-government authorities, with the exception of transactions of monetary institutions (which are included in the monetary sector), while the private sector covers transactions of all resident individuals and private institutions (again excepting monetary institutions). The monetary sector covers all banking institutions, including government-owned banks. Transactions of the monetary sector are further sub-divided into those of official and 'non-official' monetary institutions. Transactions of official institutions include changes in Australia's official reserve assets (consisting of gold, foreign exchange, the IMF gold tranche and special drawing rights in the IMF) and transactions between the Reserve Bank of Australia and foreign central monetary authorities and the IMF. Also included is an item, *19.3 Allocation of Special Drawing Rights*. This is the counterpart to the change in official reserve assets due to the allocation to Australia of SDRs by the IMF. Such an entry is necessary in this case because without it there would be no corresponding credit to the increase in assets (debit) and the allocation would be reflected in an offsetting movement in the balancing item. 'Non-official' monetary institutions includes all other transactions of Australian monetary institutions.

In the government sector, the most important items include transactions by non-residents in government securities domiciled overseas and in Australia, and transactions involving changes in Australia's assets with and liabilities to international development institutions such as the International Bank for Reconstruction and Development and the Asian Development Bank. Other government transactions are largely a reflection of the net effect on the balance of payments of leads and lags between payments made overseas for items of equipment for the defence services and government shipping and airline enterprises and the delivery of the equipment. In periods where payments exceed the value of deliveries, a net debit results; in periods where the value of deliveries exceeds payments, a net credit is recorded.

In the private sector, the most important items are overseas investment in Australian companies, Australian investment overseas, and trade credit transactions n.e.i. The figures for trade credit n.e.i. represent changes, mainly short term, in export and import indebtedness of the principal Australian marketing authorities and other private companies.

In the monetary sector, the most important item is that which shows the net changes in Australia's official reserve assets.

The balancing item includes errors and omissions and timing differences, referred to on page 667.

BALANCE OF PAYMENTS

($ million)

	1973–74		1974–75		1975–76	
	Credit	*Debit*	*Credit*	*Debit*	*Credit*	*Debit*
CURRENT ACCOUNT						
Goods—						
1 Exports f.o.b.(*a*)	6,688	..	8,490	..	9,410	..
2 Imports f.o.b.(*a*)	..	5,754	..	7,652	..	7,924
Balance of trade	*934*	..	*838*	..	*1,486*	..
Invisibles—						
3 Gold production (net)(*b*)	30	..	56	..	23	..
4 Transportation—						
4.1 Freight on imports(*c*)	..	637	..	803	..	839
4.2 Expenditure of overseas carriers	460	..	625	..	692	..
4.3 Other transportation	220	538	322	662	332	735
5 Travel	159	341	206	428	229	509
6 Government—						
6.1 Australian government—						
6.11 Defence expenditure	..	43	..	47	..	57
6.12 Other expenditure	..	66	..	92	..	111
6.13 Services to non-residents	24	..	23	..	23	..
6.2 Foreign governments' expenditure	43	..	52	..	55	..
7 Miscellaneous—						
7.1 Business expenses	82	205	93	191	69	140
7.2 Other	48	66	60	111	57	121
8 Property income—						
8.1 Direct investment—						
8.11 Undistributed	100	425	27	236	60	616
8.12 Distributed	88	423	85	488	72	527
8.2 Interest on government loans	..	79	..	85	..	93
8.3 Royalties and copyrights	5	66	9	75	8	75
8.4 Other	322	163	293	209	196	235
9 Government transfers—						
9.1 Papua New Guinea	..	197	..	191	..	239
9.2 Other foreign aid	..	93	..	160	..	132
9.3 Social security cash benefits	..	7	..	11	..	18
10 Private transfers—						
10.1 Migrants' funds	155	119	173	100	149	115
10.2 Social security cash benefits	22	..	25	..	28	..
10.3 Other	98	143	231	166	181	198
Balance on current account	..	**820**	..	**936**	..	**1,098**

For footnotes *see* next page.

BALANCE OF PAYMENTS—*continued*
($ million)

	1973–74		*1974–75*		*1975–76*	
	Credit	*Debit*	*Credit*	*Debit*	*Credit*	*Debit*
CAPITAL ACCOUNT (NET)						
Government—						
11 Government securities—						
11.1 Domiciled overseas	..	130	1	..	126	..
11.2 Domiciled in Australia	45	..	21	..	..	71
12 International development institutions	..	11	..	27	..	25
13 Other government transactions	73	..	..	28	..	157
Private—						
14 Overseas investment in Australian companies—						
14.1 Direct investment—						
14.11 Undistributed income	425	..	236	..	616	..
14.12 Other	174	..	400	..	..	57
14.2 Portfolio investment and institutional loans	..	134	246	..	185	..
15 Australian investment overseas—						
15.1 Direct investment—						
15.11 Undistributed income	..	100	..	27	..	60
15.12 Other	..	131	..	78	..	82
15.2 Portfolio investment	..	17	..	39	..	20
16 Other private investment	14	..	14	..	1	..
17 Trade credit n.e.i.—						
17.1 Marketing authorities	..	111	..	60	120	..
17.2 Other	55	..	..	10	..	14
Monetary—						
18 Non-official monetary institutions—						
18.1 Changes in liabilities—						
18.11 Borrowings overseas	7	..	60	..	..	27
18.12 Other liabilities	14	..	81	..	..	7
18.2 Changes in assets—						
18.21 Advances to non-residents	..	4	..	3	..	9
18.22 Foreign currency balances	132	..	..	87	19	..
19 Official monetary institutions—						
19.1 Changes in liabilities—						
19.11 Use of I.M.F. credit	..	..	..	..	..	..
19.12 Other liabilities	50	..	7	..	..	28
19.2 Changes in official reserve assets	384	..	460	..	1,053	..
19.3 Allocation of S.D.R.'s	..	..	..	..	..	..
19.4 Other transactions	..	..	..	3	..	4
Balancing item	85	..	..	228	..	459
Balance on capital account	**820**	..	**936**	..	**1,098**	..

(*a*) The amounts shown represent the recorded trade figures adjusted for balance of payments purposes. Adjustments affect timing, coverage and valuation. (*b*) Estimates cover period 31 December 1976 since which date the treatment of gold transactions in the balance of payments has changed. (*c*) Freight payable overseas only. Total freight and insurance on imports, whether payable overseas or in Australia, is estimated at $745 million in 1973–74, $933 million in 1974–75 and $949 million in 1975–76.

BALANCE OF PAYMENTS BY REGIONS

($ million)

	1973–74	*1974–75*	*1975–76*
CURRENT ACCOUNT(*a*)			
Exports f.o.b.(*b*)—			
United States of America	723	787	867
Canada	173	290	243
United Kingdom	436	432	398
European Economic Community(*c*)	649	840	1,032
Japan	2,139	2,414	3,189
New Zealand	434	516	439
Papua New Guinea	122	184	163
Sino-Soviet Area	451	605	749
Other countries	1,562	2,422	2,331
Total exports	*6,688*	*8,490*	*9,410*
Imports f.o.b.(*b*)—			
United States of America	1,334	1,565	1,640
Canada	182	204	194
United Kingdom	757	1,141	1,042
European Economic Community(*c*)	786	1,097	1,061
Japan	1,037	1,392	1,558
New Zealand	160	175	238
Papua New Guinea	38	31	35
Sino-Soviet Area	139	124	107
Other countries	1,322	1,922	2,049
Total imports	*5,754*	*7,652*	*7,924*
Invisibles (net)—			
United States of America	− 554	− 604	− 847
Canada	− 25	− 22	− 61
United Kingdom	− 570	− 481	− 748
European Economic Community(*c*)	− 166	− 144	− 207
Japan	− 9	− 32	− 54
New Zealand	44	54	19
Papua New Guinea	− 63	− 91	− 124
Sino-Soviet Area	− 4	− 4	− 5
Other countries	− 395	− 446	− 543
International agencies	− 17	− 2	− 37
Gold production	30	56	23
Total invisibles (net)	*−1,729*	*−1,774*	*−2,584*
Balance on current account—			
United States of America	−1,165	−1,382	−1,620
Canada	− 34	64	− 11
United Kingdom	− 891	−1,191	−1,392
European Economic Community(*c*)	− 302	− 402	− 236
Japan	1,093	990	1,577
New Zealand	317	396	220
Papua New Guinea	22	61	4
Sino-Soviet Area	308	477	636
Other countries	− 137	53	− 262
International agencies	− 17	− 58	− 37
Gold production	30	56	23
Balance on current account	**− 776**	**− 936**	**−1,098**

For footnotes *see* next page.

BALANCE OF PAYMENTS BY REGIONS—*continued*

($ million)

	1973–74	1974–75	1975–76
CAPITAL ACCOUNT (NET)(*a*)			
Non-monetary sector—			
Government capital movements—			
United States of America	27	−7	47
Canada	. .	. .	. .
United Kingdom	−35	−64	−54
European Economic Community(*c*)	−1	22	−27
Japan	−2	. .	. .
New Zealand	. .	. .	−1
Papua New Guinea	−2	9	−5
Sino-Soviet Area	. .	. .	. .
International development financing institutions	−24	−39	−36
Other countries	16	46	−52
Total government capital movements	*−22*	*−34*	*−128*
Overseas investment in Australian companies—			
United States of America	188	346	380
Canada	18	15	22
United Kingdom	87	114	265
European Economic Community(*c*)	31	63	−19
Japan	75	71	80
New Zealand	−10	2	16
Papua New Guinea	13	−13	−2
Sino-Soviet Area	1	. .	1
Other countries	62	285	3
Total overseas investment in Australian companies	*464*	*882*	*744*
Other private capital movements—			
United States of America	−37	−3	−61
Canada	−1	−34	2
United Kingdom	−33	−25	−19
European Economic Community(*c*)	−28	−29	−7
Japan	. .	−33	59
New Zealand	−25	−94	7
Papua New Guinea	−53	−11	−33
Sino-Soviet Area	. .	17	−4
Other countries	−113	−11	2
Total other private capital movements	*−291*	*−200*	*−55*
Total non-monetary sector transactions—			
United States of America	178	335	366
Canada	17	−20	24
United Kingdom	18	26	191
European Economic Community(*c*)	1	56	−53
Japan	73	38	138
New Zealand	−34	−92	22
Papua New Guinea	−42	−15	−40
Sino-Soviet Area	1	17	−4
International development financing institutions	−24	−39	−36
Other countries	−36	342	−47
Total non-monetary sector transactions	*152*	*648*	*562*
Monetary sector transactions—			
Net official monetary movements(*d*)	435	464	1,020
Non-official monetary sector transactions(*d*)	149	51	−25
Balancing item(*d*)	85	−228	−459
Balance on capital account(*d*)	**820**	**936**	**1,098**

(*a*) For current account balances minus sign (−) denotes deficit; for capital account items minus sign (−) denotes an increase in overseas assets or a decrease in liabilities to overseas. (*b*) The amounts shown represent recorded trade figures adjusted for balance of payments purposes. Adjustments affect timing, coverage and valuation. (*c*) Excluding United Kingdom. (*d*) No regional split is available for these items.

International reserves

The following table shows Australia's official reserve assets as at 30 June for recent years.

OFFICIAL RESERVE ASSETS(*a*)
(*Source:* Reserve Bank of Australia)
($ million)

	30 June			
	1974	*1975*	*1976*	*1977*
Official reserve assets—				
Gold	210	238	749	947
Special Drawing Rights	150	89	37	27
I.M.F. gold tranche	149	156	155	174
Foreign exchange—				
United States dollars	1,852	2,252	1,457	1,312
Others	1,199	758	688	851
Total	**3,560**	**3,493**	**3,086**	**3,312**

(*a*) Up to 30 June 1974, SDRs, Australia's reserve position in the IMF and IMF credit tranche, are valued on the basis of Australia's official parity established with the IMF; subsequent figures are based on the IMF basket valuation for the SDR, which is published in terms of US dollars crossed with the representative rate for the Australian dollar in terms of the US dollar. Gold is valued at the Reserve Bank buying price up to the end of January 1976; from February 1976 to end May 1976, gold is valued at the IMF official price in SDRs converted to Australian dollars at the derived SDR/$A rate; subsequently, the basis of valuation is the average London gold price for the month, converted to Australian dollars at the market rate of exchange applying on the last day of the month. Since June 1973, the foreign currency value of all other overseas assets has been based, where applicable, on market quotations. Accrued interest is normally taken into account. Figures for earlier periods are on an historical cost basis. Conversion to Australian dollar equivalent is based on market rates of exchange.

FOREIGN CONTROL

A program of studies of foreign control of key industries and economic activities in Australia is being undertaken. Studies have been completed for mining, manufacturing, tourist accommodation, accredited advertising agencies, finance companies, general insurance, life insurance, mineral exploration other than for petroleum and petroleum exploration. The program of foreign control studies will be extended progressively to cover other areas of the Australian economy and will provide for updating of studies in selected areas to monitor trends in foreign control over time.

Brief explanatory notes and a summary of the main results of these studies are given below.

Broadly, an enterprise in Australia has been classified to *foreign control* if a foreign resident investor (individual, company or group of related companies) held at least 25 per cent of the paid-up value of its voting shares (or equivalent equity interest in the case of unincorporated enterprises), provided that there was no larger holding by an Australian-controlled enterprise or Australian resident individual. Under this definition, enterprises in which there was an *equal* holding by an Australian-controlled enterprise or Australian resident individual have been classified to *foreign control*. All enterprises not classified to foreign control have been classified to *Australian control*.

To obtain aggregate measures of the extent of foreign control of an industry, operations data for each statistical unit in that industry have been allocated wholly to the appropriate control category for that unit and the results summed over all units in the industry.

In the following table the classification by country of foreign control is based on the country of domicile of the foreign resident who holds the controlling interest (of 25 per cent or more). This may not correspond to the country of ultimate control since the foreign resident may be a company that is controlled by residents of another country.

FOREIGN CONTROL OF AUSTRALIAN INDUSTRIES

Industry and period	Foreign/Aust. control measured in terms of	Foreign control				Australian control	Total	Total
		United Kingdom	United States of America	Other	Total			
		per cent	per cent	per cent	per cent	per cent	per cent	$ million
Manufacturing 1972–73	value added	16.2	13.1	5.0	34.3	65.7	100.0	10,746
Mining 1974–75	value added	12.6	40 6	5.7	58.9	41.1	100 0	2,641
General insurance business 1975–76	premiums received	26.0	2.7	9.1	37.8	62.2	100.0	2,846
Life insurance business 1976	premiums received	13.2	1.7	3.8	18.7	81.3	100.0	1,501
Finance companies 1976	balances outstanding	17.9	26.5	3.8	48.2	51.8	100.0	13,254
Tourist accommodation establishments 1973–74	total takings	1.2	0.7	2.3	4.3	95.7	100.0	1,361
Accredited advertising agencies 1974–75	turnover	6.4	44.5	..	50.9	49.1	100.0	464
Mineral exploration other than for petroleum 1975–76	exploration expenditure	15.0	23.6	15.8	54.4	45.6	100.0	117
Petroleum exploration 1975–76	exploration expenditure	36.7	34.1	3.6	74.4	25.6	100.0	60

VALUES OF EXPORTS AND IMPORTS OF MERCHANDISE AT CONSTANT PRICES

The following tables show annual values of Australian exports and imports of merchandise at constant (average 1966–67) prices. These estimates are compiled on the basis of recorded statistics of merchandise trade within the framework of the Australian Export Commodity Classification (A.E.C.C.) and the Australian Import Commodity Classification (A.I.C.C.). Quarterly figures in original and seasonally adjusted terms are published regularly in the bulletin *Exports and Imports of Merchandise at Constant Prices* (5421.0).

Nature of measures

In concept, constant price estimates may be thought of as being derived by expressing the value of each component transaction as the product of a quantity and a price, and then substituting for each current period price the average price of the corresponding item in the base year. There are, however, many transactions recorded in statistics of overseas trade for which it is not possible to apply such an approach. Some common examples of such transactions are those where quantity data are not recorded or where there is some doubt as to whether the commodity involved corresponds sufficiently to that for which a base year price has been calculated. In these cases it is necessary to make assumptions and approximations (e.g. revaluing by means of the price index which is considered to be most closely related to the commodity involved). The published estimates at constant prices should be viewed in the light of these approximations and should not be interpreted as precise quantitative measures.

The system of recording import values was changed from 1 July 1976. It has been estimated that, if the previous basis of valuation had been continued, the total value of imports would have been about 2 per cent higher at current prices than the recorded values on the new basis. The constant (average 1966–67) price estimates would be affected to a much lesser degree (refer page 646).

IMPORTS OF MERCHANDISE AT AVERAGE 1966-67 PRICES

($ million)

	1966–67	1967–68	1968–69	1969–70	1970–71	1971–72	1972–73	1973–74	1974–75	1975–76	1976–77p
Food, beverages and tobacco	156	155	171	181	188	193	197	243	251	234	269
Fuels	247	247	258	273	198	176	158	166	156	148	167
Basic materials	221	235	235	247	239	230	276	336	243	248	256
Chemicals (incl. plastics)	297	325	366	392	432	414	447	523	496	408	491
Textiles, fabrics, etc.	240	257	274	293	305	318	343	499	332	451	473
Metalliferous ores, metal scrap and transport equipment	1,302	1,447	1,510	1,657	1,737	1,469	1,497	2,152	2,446	2,105	2,354
Other imports	541	598	656	744	822	831	889	1,147	1,175	1,140	1,277
Total imports of merchandise	**3,004**	**3,264**	**3,470**	**3,787**	**3,921**	**3,631**	**3,807**	**5,066**	**5,099**	**4,734**	**5,287**

EXPORTS OF MERCHANDISE AT AVERAGE 1966-67 PRICES
($ million)

	1966–67	*1967–68*	*1968–69*	*1969–70*	*1970–71*	*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*	*1976–77*
Meat and meat preparations . . .	279	279	275	369	375	466	598	442	380	506	601
Cereal grains and cereal preparations . .	463	437	371	489	674	693	442	429	646	646	681
Sugar, sugar preparations and honey . .	106	104	132	89	104	130	131	112	124	124	157
Other (dairy produce, fruit, etc.) . .	260	258	240	278	296	275	328	299	249	294	325
Wool and sheep skins .	871	891	935	997	914	984	937	674	653	819	952
Total of above .	*1,979*	*1,969*	*1,953*	*2,222*	*2,363*	*2,548*	*2,436*	*1,956*	*2,052*	*2,389*	*2,716*
Metalliferous ores and metal scrap . .	163	241	345	493	629	640	775	903	976	927	976
Coal, coke and briquettes	73	87	114	148	162	177	210	226	267	246	279
Metals, metal manufactures, machinery and transport equipment .	419	417	487	632	653	777	944	779	842	773	797
Other exports . .	301	365	435	504	545	633	678	774	761	793	857
Total exports of merchandise . . .	**2,935**	**3,079**	**3,334**	**3,999**	**4,352**	**4,775**	**5,043**	**4,638**	**4,898**	**5,128**	**5,625**

Further information

For detailed information *see* the *Annual Bulletin of Overseas Investment, Australia* (5305.0) and the associated bulletin *Overseas Borrowings by Companies in Australia* (5307.0) (latest issue 1974–75; also the other annual bulletins *Overseas Trade* (issued in two parts) (5409.0 and 5410.0)), *Australian Exports, Country by Commodity* (5411.0), *Australian Imports, Country by Commodity* (5414.0), *Imports Cleared for Home Consumption* (issued in two parts) (5412.0 and 5413.0) and the annual bulletin *Balance of Payments* (5303.0). Preliminary information is available in summary form in the statements *Balance of Payments—Quarterly Summary* (5302.0), *Overseas Investment—Preliminary Bulletin* (annual) (5304.0), *Australian Overseas Trade—Exports and Imports* (5401.0) (monthly), *Overseas Trade—Exports by Commodity Divisions* (monthly) (5402.0), and *Overseas Trade—Imports by Commodity Divisions* (monthly) (5405.0). Current information is included in the *Monthly Review of Business Statistics* (1304.0), the *Digest of Current Economic Statistics* (1305.0), and in more detail in the *Monthly Bulletins of Overseas Trade Statistics* (5404.0) (5406.0). There are also the following additional mimeographed statements: *Exports of Major Commodities by Country* (monthly) (5403.0), *Imports of Assembled New Passenger Motor Cars* (monthly) (5416.0) and *Exports by Mode of Transport* (quarterly) (5415.0). Additional unpublished details of exports and imports can be supplied on request.

A subscription service is available from this Bureau to provide for the detailed requirements of individual users of overseas trade statistics. These special periodical statements are obtainable monthly or quarterly and show trade according to items of the Australian Export and Import Commodity Classifications or statistical key code dissections of Australian Customs Tariff items. A nominal charge is made which varies depending on the amount of detail required.

More detailed statistics and explanatory notes on individual foreign participation studies are contained in the following bulletins:

Foreign Ownership and Control in Manufacturing Industry, 1972–73 (5322.0), *Foreign Control in Manufacturing, Study of Large Enterprise Groups*, 1972–73 (5315.0), *Foreign Ownership and Control of the Mining Industry*, 1973–74 and 1974–75 (5317.0), *Foreign Ownership and Control of General Insurance Business*, 1972–73 (5309.0), *Foreign Ownership and Control of Life Insurance Business*, 1973 (5311.0), *Foreign Ownership and Control of Finance Companies*, 1973 (5313.0), *Foreign Ownership and Control of Tourist Accommodation Establishments*, 1973–74 (5319.0), *Foreign Ownership and Control of Accredited Advertising Agencies*, 1974–75 (5318.0) and *Foreign Control in Mineral Exploration*, 1975–76 (5323.0).

CHAPTER 25

SCIENCE AND TECHNOLOGY

Overview

Much of the early history of Australian science was based largely on the individual achievements of a few outstanding scientists.

During and after World War I, governments in various parts of the world took initiatives aimed at encouraging scientific research and applying it to economic growth and national development; Australia was no exception. In 1926 the Council for Scientific and Industrial Research (CSIR) was established by the Commonwealth Government. Initially, it concentrated its efforts on the primary industries, typifying the trend of research in Australia at that time, when most major research initiatives were taken by Government and aimed at the primary industries. The level of research in the universities and industries remained much as before.

With the approach of World War II, however, moves were made to extend scientific support for secondary industry. In the CSIR, Divisions created in the period 1937-40 were to play an important part in the rapid development of Australian industry that occurred under the stimulus of war-time needs.

Expansion of scientific research in general, and industrial research in particular, continued after the war. This expansion extended beyond government into the universities and industry.

Though, even today, agricultural research absorbs a significant proportion of Australia's research effort, industrial, medical and defence research are now of major importance also. The volume of research in the social sciences remains small, although in Australia, as elsewhere in recent years, there has been increasing support for the view that adequate weight must be given in governmental policy-making to the social aspects of national proposals.

In 1973–74, the most recent year for which data are available, total expenditure on research and development (R and D) in both the natural and social sciences was estimated at $651 million, approximately equivalent to 1.3 per cent of the Gross Domestic Product ($50,557 million) in that year. The data are summarised in the table on page 989 of Year Book No. 61.

In 1973–74, governments in Australia provided approximately 60 per cent of the funds devoted to R and D and undertook in their own agencies approximately 42 per cent (in terms of expenditure) of the overall national R and D effort.

Whilst these data serve to illustrate the dominant position occupied by governments in Australian scientific and technological R and D activities, they do not provide a complete picture since comprehensive information is not available on resources devoted to other scientific and technological activities in Australia.

Advice and co-ordination

In order to achieve at the national level integration of advice, relative assessment of priorities and the development of criteria and broad strategies for future directions, three national advisory bodies have been established: the Australian Science and Technology Council (ASTEC), which is responsible to the Minister for Science; the National Energy Advisory Committee (NEAC), which advises the Minister for National Development on matters relating to national energy policy; and the Australian Manufacturing Council (AMC), which is served by some eleven advisory councils and advises the Minister for Industry and Commerce on matters of industry policy. The latter two bodies are discussed in Chapters 16 and 17 respectively of this Year Book.

Australian Science and Technology Council (ASTEC)

Prior to the establishment of ASTEC, there had been an intensive period of discussion and review concerning arrangements for the provision to the Government of adequate advice on policies for science and technology in Australia. An outline of the discussions can be found in Chapter 28 of Yearbook No. 61.

In April 1977, the Prime Minister announced in the Parliament that ASTEC would be established on a permanent basis as a statutory body. The functions of ASTEC are to advise the Government on science and technology, including:

- the advancement of scientific knowledge and the development and application of science and technology in relation to the national well-being;
- the adequacy, effectiveness and overall balance of the national effort in science and technology in government, industry, education and other sectors of the community;
- the assessment of gaps and overlaps in science and technology in Australia;
- the identification and support of new areas of science and technology likely to be of national importance;
- the practical development and application of research discoveries and the fostering of technological innovation in industry; and
- the means of improving efficiency in the use of resources related to science and technology.

The Council will have a strategic role in assisting the Government to encourage Australian science and technology to meet the nation's needs and objectives. It will have no executive responsibilities but will be able to advise on operational arrangements.

ASTEC's knowledge and analysis of science and technology will be valuable to many arms of government. The Government expects the Council to inform itself and be informed of relevant government policies and to take into consideration economic and budgetary implications in discharging its functions. ASTEC will draw on existing departments and agencies for the expertise, knowledge and assistance necessary to enable these functions to be discharged effectively.

Department of Science

Successive Governments have seen the Department of Science as having a complementary role in relation to an advisory council on science and technology. As a government department it has ready access to information available to government concerning civil science and technology, and is able to provide a scientific and technological perspective at the interdepartmental level. The Department's role includes the fostering of closer working relationships and consultation among government agencies, tertiary institutions, scientific associations, the private sector and the community. The Department's administrative functions in relation to certain scientific services and research activities (such as the Bureau of Meteorology, the Australian Government Analytical Laboratories, and the Antarctic Division) help to ensure that its policy advice is tempered with an awareness of practical problems in science and technology.

Other Organisations

Advice to government on scientific and technological issues comes also from various learned and professional bodies. Such counsel may be offered on the initiative of the organisation itself or in response to an official request. For example, the *Australian Academy of Science* maintains a number of sectional and standing committees which specialise in selected broad fields of science; ad hoc advisory committees are appointed by the Academy from time to time to examine and report on specific matters. In addition, the Academy has maintained since 1967 a Science and Industry Forum which brings together leading scientists and industrialists to discuss topics of national significance; a complementary Science and Society Forum was inaugurated in 1973. Communication between government and the technology area of the science-technology spectrum will be facilitated by the recently established (1976) *Australian Academy of Technological Sciences.*

The most broadly based of the learned and professional bodies is the *Australian and New Zealand Association for the Advancement of Science* (ANZAAS). The Association has established a Science Policy Commission for giving increased attention to policy issues.

In recent years, matters of scientific and technological policy have received much discussion among such learned and professional organisations as well as in academic circles. Increasingly, other professional bodies with more specific charters are giving attention to matters of science and technology policy. Such bodies include the *Royal Australian Chemical Institute* (RACI), the *Institution of Engineers, Australia*, the *Australian Institute of Physics*, and the *Federation of Australian University Staff Associations* (FAUSA) which concentrates on issues specifically affecting the university sector.

There are a number of groups within the industry sector—e.g. the Australian Industrial Research Group (AIRG) and some specialist panels (Industry Advisory Councils) of the Australian Manufacturing Council (AMC)—which, from time to time, provide advice to government on industrial research and development.

Intergovernmental co-ordination is effected through bodies established for the purpose. While certain of these are concerned with promoting research and scientific and technical services, these are secondary objectives pursued in tandem with economic, social or environmental goals. Typical of these bodies are the Australian Agricultural Council, the Australian Minerals and Energy Council, the Australian Water Resources Council, and the Australian Environment Council.

The intergovernmental ministerial councils are assisted by standing committees of officials. Frequently, expert working groups and sub-committees are established to consider particular specialised aspects of a council's broad field of interest and to advise the council through the relevant standing committee.

Councils do not directly undertake research or the provision of services, although such activities are commonly pursued within agencies coming under the control of individual ministerial members. In some instances, councils have control of research funds and provide grants or arrange for projects to be undertaken in particular fields of interest.

In some scientific and technical fields not coming directly within the purview of the ministerial councils, there are standing arrangements at agency level for consultation and promotion of co-operation (the Electricity Supply Association of Australia is an example).

In addition to intergovernmental agencies, official advisory bodies have been established to deal with activities, interests and responsibilities of the Federal Government and its agencies, and to advise on Government support of higher education and of industry. Amongst these bodies are the Australian Research Grants Committee (ARGC); the National Health and Medical Research Council (NHMRC); the Australian Industrial Research and Development Incentives Board (AIRDIB); the CSIRO Advisory Council and its State Committees; and the Tertiary Education Commission and its Councils.

Expenditure and manpower

Project SCORE

As mentioned above, comprehensive data on the resources devoted to scientific and technological activities in Australia are not available. Therefore, though some details of Australian expenditure on research and development activities are given below, it should be noted that the data do not include many important scientifically- or technologically-based programs. Programs not covered by Project SCORE (Survey and Comparisons of Research Expenditure), some of which involve large expenditures, are R and D components of the non-scientific or technological services.

The first comprehensive survey of expenditure on R and D was carried out for the 1968/69 financial year. This survey covered R and D expenditure and manpower in the natural and social sciences in all sectors of the Australian economy. In addition to a summary report dealing with the overall national situation, separate Project SCORE reports cover the following sectors: Commonwealth Government, Business Enterprise, State Government, Higher Education, and Private Non-Profit. A summary of the results for 1968/69 is given in Year Book No. 60, pp. 995–1,005.

Two subsequent SCORE surveys cover the financial years 1973/74 and 1976/77, although expenditure in the Higher Education sector is for the calendar years 1974 and 1976. A summary of the results of the second survey is given in Year Book No. 61 pp. 989–998. The data from the third survey had not been collated at time of writing.

Resources and services

Although power to regulate the development and utilisation of Australia's natural resources rests largely with the States, the Commonwealth Government, in part because of its jurisdiction in the control of Australia's overseas trade, also plays an important role. Extensive machinery exists for consultation and collaboration between the Commonwealth and State governments in relation to the development and management of natural resources.

Several important resources and services are dealt with elsewhere in this Year Book and are thus not included in this chapter. These include health (chapter 10), the rural industry (chapter 13), forestry (chapter 14), fisheries (chapter 14), water (chapter 15), the mineral industry (chapter 16), transport (chapter 20), and communications (chapter 20).

Soil resources

A Standing Committee on Soil Conservation was established in 1946. It comprises the heads of soil conservation bodies in the States and representatives of relevant Commonwealth agencies. The Committee co-ordinates activities of interest to its member bodies such as the survey of erosion throughout Australia which was carried out in the late 1960s, and the development of co-operative arrangements for in-service training of technical personnel.

Fauna and flora resources

Responsibility for the conservation and management of fauna and flora resources rests, in the main, with the State Governments. However, the Commonwealth has responsibility for such resources in its own Territories.

During the last century, as each State became established, museums and botanical gardens containing herbaria were set up. Studies of fauna and flora were carried out by these bodies and by the universities. Various divisions of the CSIRO have also carried out work on fauna and flora, but an important part of total Australian research into biological resources continues to be undertaken in the museums and herbaria of the State governments. In 1975, the Commonwealth Government established a National Parks and Wildlife Commission and Service, whose functions include care and management of national parks and wildlife in Australia and its Territories, conduct of ecological studies to determine additional areas which should be reserved as national parks and nature reserves, and survey and assessment of wildlife populations with particular reference to endangered species.

The Commonwealth has also made funds available, through the Australian Biological Resources Study Interim Council, to stimulate taxonomic and ecological studies of Australian fauna and flora resources. Funds were also provided towards the establishment of biological resources data centres to enable the storage and retrieval of biological data on a national basis. Planning of longer term national botanical and zoological studies has been commenced.

Environmental protection

Responsibility for most aspects of environmental protection rests with the State governments, and all of these have enacted legislation to regulate those operations of governmental and private enterprises that may have a deleterious effect on the physical environment.

The Commonwealth Government has responsibility for environmental protection in its own Territories, in respect of the operations of its own agencies within the States, and in relation to projects or activities carried out by other authorities with the aid of Commonwealth funds. It is also concerned with the enforcement of provisions of relevant international conventions to which Australia is a signatory.

The various governments collaborate in environmental and conservation matters through three Ministerial Councils: *the Australian Environment Council*, which provides a framework for consultation on environmental matters; the *Council of Nature Conservation Ministers*, which is concerned with preservation of wildlife and the establishment and management of national parks; and the *Australian Water Resources Council*, which is concerned with the assessment, development and use of national water resources.

Each government has designated ministers who are concerned with the administration of broad policies for environmental protection. In some cases, governments have implemented policies requiring the provision for public scrutiny of environmental impact statements as a prerequisite to approval of new development projects or activities with significant environmental consequences.

Meteorology

The Bureau of Meteorology, which is a Division of the Department of Science, is the national authority for providing weather forecasting and warning services, and general meteorological information and consultative advice. Users of these services include the general public, defence forces, civil aviation and marine authorities, and specialist groups in primary and secondary industries.

Programs of research are carried out in support of these services, often in co-operation with other institutions concerned with meteorological science including universities and the Environmental Physics Research Laboratories of the CSIRO. The Australian Numerical Meteorology Research Centre, which specialises in the development of numerical model techniques for predicting atmospheric behaviour, is operated jointly by the Bureau of Meteorology and CSIRO.

Total expenditure by the Bureau in 1976/77 was approximately $35 million.

Ionospheric Prediction Service

The Ionospheric Prediction Service (IPS) Branch of the Department of Science exists to assist users of radio communications to achieve the most effective and efficient use of radio transmissions that are influenced by or dependent on the ionosphere. The staff of the Branch make regular measurements of the ionosphere above Australia and its territories, and of the sun, and issue both short and long term predictions of the state of the ionosphere as it applies to radio communication.

Research into physical phenomena affecting the condition of the ionosphere forms part of the regular activity of the IPS.

Scientific and Technological Information Services

Scientific literature for scientists and technologists is provided by national and State libraries, through libraries operated by scientific and technological agencies of the Commonwealth and State Governments, by tertiary education institutions and by industrial organisations. Two important scientific libraries within the Commonwealth Government sector are the CSIRO Central Library and the Australian National Scientific and Technological Library (ANSTEL).

Several Commonwealth Agencies, including the Australian Atomic Energy Commission (AAEC), the CSIRO, the Department of Productivity and the National Library of Australia are now offering Australian subscribers access to overseas bibliographic and numerical data bases. The Overseas Telecommunications Commission is developing an international data transmission service to be known as MIDAS (Multi-mode International Data Acquisition Service) which should improve access to international data stores.

Another overseas trend now arousing interest amongst Australian scientists is the development of numerical data bases which provide quick access to factual data. CSIRO is currently operating Thermodata, a metallurgical thermodynamic data base, and is in the process of developing other similar data bases.

A number of Australian scientific and technological indexes and directories now exist or are in the course of production by Commonwealth Government departments and agencies. Two recent initiatives are:

- a directory of Australian research projects currently being undertaken by the Higher Education sector which is being compiled jointly by the Department of Science (in conjunction with its work on Project SCORE) and the CSIRO; and
- a Directory of Technological Information Sources for Industry which is to be produced by the National Library of Australia.

Major government research agencies

The Commonwealth Scientific and Industrial Research Organization (CSIRO)

The CSIRO is the largest scientific research organization in Australia. It is a statutory body established in 1949 to replace the former Council for Scientific and Industrial Research (CSIR).

The main function of the CSIRO is to carry out scientific research and investigations in connection with Australia's primary and secondary industries. The CSIRO has at present 37 research Divisions and 6 smaller research Units, a number of them being linked together in laboratory groups. The governing Executive, which is responsible to the Minister for Science, is assisted by a Secretariat in the development, administration and implementation of its policies. The wide range of their activities is illustrated by the following table:

GENERAL DISTRIBUTION OF RESEARCH EFFORT IN CSIRO IN TERMS OF NON-CAPITAL EXPENDITURE, 1976-77

Field	*Divisions and units*	*$ million*	*per cent*
Crops and pastures	Horticultural Research	15.1	12.4
	Irrigation Research		
	Plant Industry		
	Tropical Crops and Pastures		
Livestock	Animal Health	13.4	11.0
	Animal Production		
	Molecular and Cellular Biology Unit		
Forestry	Forest Research	3.7	3.0
Land use	Land Resources Management	10.1	8.3
	Land Use Research		
	Soils		
Insects and wildlife	Entomology	9.0	7.4
	Wildlife Research		
Marine science	Fisheries and Oceanography	5.6	4.6
	Marine Biochemistry Unit (now disbanded)		
Environmental physics	Atmospheric Physics	3.9	3.2
	Cloud Physics		
	Environmental Mechanics		
	ANMRC		
Wool processing and textiles	Protein Chemistry	8.1	6.7
	Textile Industry		
	Textile Physics		
Food and nutrition	Food Research	8.0	6.6
	Wheat Research		
	Human Nutrition		
Mineral exploration, processing and properties	Mineralogy	10.6	8.7
	Mineral Chemistry		
	Mineral Physics		
	Chemical Engineering		
	Baas Becking Geo-biological Group		
National Standards	National Measurement Laboratory	6.8	5.6
Chemical and physical research of industrial interest	Chemical Technology	9.6	7.9
	Applied Organic Chemistry		
	Chemical Physics		
	Tribophysics		
	Solar Energy Studies Unit		
Engineering and Construction	Applied Geomechanics	8.6	7.1
	Building Research		
	Mechanical Engineering		
Radiophysics	Radiophysics	4.1	3.4
Computing statistics	Computing Research	4.8	4.0
	Mathematics and Statistics		

The powers and functions of the CSIRO are prescribed in the *Science and Industry Research Act* 1949–1973, under which the Organization operates. In brief, these are as follows:

- to carry out scientific research and investigations in connection with Australian primary and secondary industries or any other matter referred to it by the Minister for Science;
- to train scientific research workers, and award studentships;
- to make grants in aid of scientific research;
- to recognise and support research associations;
- to maintain national standards of measurement;
- to disseminate scientific and technical information;
- to publish scientific and technical reports; and
- to liaise with other countries in matters of scientific research.

In 1976/77, the CSIRO expended approximately $141 million, more than 85 per cent of which was met by the Commonwealth Government through direct appropriation. The major part of the balance came from a number of statutory trusts which derive their funds from levies on primary production. Funds were also received from other Commonwealth agencies, individual companies, private foundations and overseas instrumentalities.

On 20 May 1976 the Treasurer announced in the Parliament that the Government had decided to conduct an independent external inquiry into the operation of the CSIRO. It was intended that the inquiry should cover the general philosophy, organisation and management structure of the organisation, the efficacy of its research programs and its revenue-raising potential. The Inquiry was conducted by Professor A. J. Birch, Sir Cecil Looker and Mr R. T. Madigan, O.B.E. The Report was tabled by the Government in October 1977 and has been published by the Australian Government Publishing Service.

The Australian Atomic Energy Commission (AAEC)

The AAEC was established by the Australian Parliament under the *Atomic Energy Act* 1953 as a statutory body whose main functions are to facilitate the development of Australia's resources and the utilisation of various forms of nuclear energy within the Australian economy.

Moving in its earliest days towards the planning and construction of a nuclear research establishment at Lucas Heights near Sydney, the Commission arranged for a nucleus of scientists and engineers to obtain training and experience through overseas attachments, mainly in the United Kingdom. By the late 1950s, an R and D program had been initiated at its research establishment.

The AAEC's activities are controlled by a Commission which is responsible to the Minister for National Resources. The *Atomic Energy Act* provides for the Commission to consist of five Commissioners including a Chairman.

The Commission's current program places emphasis on the following areas: nuclear power; safety and the environment; uranium and nuclear fuels; radioisotopes and radiation; and international relations.

Current expenditure by the AAEC is of the order of $20 million a year.

The AAEC participates in the activities of the Australian Institute of Nuclear Science and Engineering. The Institute, which has a corporate membership comprising the Commission and the Australian universities, is concerned with the awarding of studentships, fellowships and research grants, with the organising of conferences and with arranging the use of AAEC facilities by postgraduate students.

The Antarctic Division, Department of Science

Australia has been active in research and exploration in the Antarctic region since early in the present century, but the overall effort has expanded appreciably since the 1940's when the Government established the Australian National Antarctic Research Expeditions (ANARE) and the Antarctic Division.

At any given time the total staff complement of the Division varies between 170 and 220 persons, about half of whom are engaged on a short-term basis to man annual expeditions and provide general support. Expenditure by the Division in 1976/77 was approximately $6.5 million.

Services provided by the Antarctic Division in relation to research expeditions include:

- the supply and maintenance of three permanent stations in the Australian Antarctic Territory on the Antarctic continent and one on sub-Antarctic Macquarie Island;
- the mounting of annual and shorter-term research expeditions;
- the co-ordination of activities of agencies involved with ANARE (which include the Antarctic Division itself, the Bureau of Meteorology and the Ionospheric Prediction Service of the Department of Science); the Bureau of Mineral Resources, Geology and Geophysics, and the Division of National Mapping of the Department of National Resources; certain sections of the Army; various university departments; and the CSIRO.

In addition to its general support function, the Division directly undertakes research in such fields as cosmic ray and upper atmosphere physics, glaciology, Antarctic biology and medical science matters relevant to Antarctic conditions. In 1977 the Government approved an extension of the Division's scientific program into the marine areas around Antarctica. Personnel at research stations include meteorologists, physicists, glaciologists, biologists and logistic staff.

Australia is a signatory to the Antarctic Treaty, and many of its scientific activities in Antarctica are undertaken in collaboration with other signatory countries.

Australian Institute of Marine Science (AIMS)

The AIMS has been established on a 190 hectare site within a national park at Cape Ferguson, 50 kilometres south of Townsville in North Queensland. The laboratory complex was opened in September 1977. A 27 metre ocean-going research vessel is being constructed for the Institute. Delivery is expected early in 1978. A harbour for the Institute's vessels was completed in April 1976.

The Institute is essentially concerned with research and will emphasise multi-disciplinary projects focused on tropical marine sciences. Research projects at the AIMS during 1976/77 fell into three areas: tropical marine food webs; reef-building organisms and the Great Barrier Reef; and tropical marine pollution. These areas were selected both for their current importance to marine science and for their relevance to many applied problems. Specific programs being undertaken by the Institute concern: inshore ecology and productivity; plankton behaviour; pelagic biology; coral taxonomy; and coral calcification.

Defence Science

The Commonwealth Government performs a significant amount of research and development in this category. More detail may be found in Chapter 4.

Research in private industry

Expenditure on research and development carried out by private industry in 1973–74 was about $228m, of which about $206m came from industry's own funds. In addition, industry contributed about $28m towards the cost of R and D carried out overseas and in the Higher Education, Private Non-Profit and Government sectors. Australia has not been collecting data on its private industry R and D expenditure for sufficient time to establish any trends. There are indications, however, that expenditure on R and D by private industry has fallen in actual and real terms since the 1973–74 survey. This seems particularly true of the larger companies where staff numbers employed on R and D are estimated to have fallen by about 30 per cent in the last 5 years.

Special government funds for research and development were available during the period 1967–76 under the provisions of the *Industrial Research and Development Grants Act*, which allocated a proportion of the increase in expenditure on research over a base period as a direct grant. The proportion was initially 50 per cent, but was reduced to 40 per cent of the increase in outlays as from June 1970. During the lifetime of the scheme, grants totalling approximately $100m were made to some 1,800 individual companies.

In 1976 the *Grants Act* was replaced with new legislation, the *Industrial Research and Development Incentives Act*. This consists of two elements: commencement grants to encourage companies to develop a basic R and D capability; and project grants designed to give support to individual projects being undertaken in industry.

Fourteen million dollars has been appropriated in the 1977–78 budget for this Scheme.

Local R and D efforts have been significantly supplemented by overseas technology largely associated with the activities of foreign firms. Australian firms in many industries have bought or licensed foreign technology; royalties remitted overseas for technology amounted to $77m in 1973–74. In addition, there is informal exchange of technology between Australian and overseas firms.

Other fields of activity which to some extent involve the adoption by industry of new technology, and which attract financial support from the Commonwealth, include industrial design and product standardisation. The Industrial Design Council of Australia and the Standards Association of Australia receive subsidies from the Commonwealth Government.

Metric Conversion

Related to product standardisation is the conversion to the metric (SI) system of weights and measures which is now well advanced in Australia. The conversion program has been developed and implemented under the guidance of a Metric Conversion Board established by the Commonwealth Government. The Board considers that the conversion will be effectively achieved by 1980 as originally envisaged, although it has always been recognised that some residual use of imperial units will continue for a time thereafter, e.g. in association with equipment of long life. The implementation of the program has depended in large measure on general community co-operation. The Board sought and gained assistance from advisory groups representative of all sectors of the community.

Industry organisations

A number of organisations aiming, wholly or in part, to support and encourage R and D have been established within industry. By far the majority support sectional interests. Examples of such organisations are the Bread Research Institute and the Australian Mineral Industries Research Association.

Research in universities and colleges

General financial support for higher education is provided primarily by the Commonwealth Government through the Councils of the Tertiary Education Commission (the Universities Council (U.C.); the Technical and Further Education Council (T.A.F.E.C.); and the Advanced Education Council (A.E.C.)). In addition, the Government funds research undertaken in the universities and elsewhere through a number of granting schemes. In some cases, Commonwealth Government funds are supplemented by State governments or by levies imposed on or by specific industries (e.g. the wool, wheat and beef industries) for that purpose.

The two principal granting schemes through which supplementary funds are made available for research in universities are those administered by the Australian Research Grants Committee (ARGC), and the National Health and Medical Research Council (NHMRC). For both schemes the principal criteria for awards are the scientific excellence of the applicant and the research project. Applications are judged by expert advisory committees composed of practising scientists, and recommendations are made to the Minister for Science and the Minister for Health for the ARGC and NHMRC awards respectively.

Fellowships such as the Queen Elizabeth the Second Fellowships and the like, while providing some additional funds, are significant more for the prestige they carry than for their contribution to overall funding levels. They are, however, more readily available to the young scientist than are the ARGC awards.

Colleges of Advanced Education do not maintain expensive research facilities or programs akin to those of the universities; nevertheless, staff are encouraged to undertake research to the extent that this is possible. Research of an applied nature, and associated consultancy services to industry and commerce, are expected to become increasingly prominent within the colleges.

Research organisations associated with education institutions

Several of the tertiary education institutions have established independent, commercial companies to promote and manage research and consultancy services to industry, commerce, government and the community. Examples are: Unisearch Ltd, associated with University of New South Wales, Wait-Aid Ltd, associated with the Western Australia Institute of Technology; Technisearch Ltd, associated with the Royal Melbourne Institute of Technology; SARD, associated with the Swinburne College of Technology; Techsearch Inc., associated with the South Australian Institute of Technology; and TUNRA, the University of Newcastle research association.

These organisations play an important role in promoting communication between the higher education and other sectors. They undertake investigational and research projects, mainly in the fields of engineering and science. However, activities in other fields such as management, marketing, and the social sciences are increasing. Testing work, performed generally by full-time employees, is undertaken in some instances. Results of work are confidential to the client and are not published unless authorised by that client.

Social science research

Research in the social sciences is undertaken primarily in universities and agencies of the Australian and State governments. Financial support for research in non-government bodies, especially universities, is provided by government. This support comes both from general funds provided to the universities and also from specific granting bodies such as the ARGC and the Australian Advisory Committee on Research and Development in Education.

The bulk of social science research carried out within Commonwealth Government agencies is performed as part of the general activities of various departments. However, several agencies have been established specifically to undertake research. Agencies which have been established to undertake research in particular areas include the Australian Institute of Aboriginal Studies, the Australian Institute of Criminology, the Bureau of Agricultural Economics and the Bureau of Transport Economics.

Agencies of the various State governments undertake research relevant to their own activities and programs especially related to health, youth and community services.

Exchange of ideas and information on the social sciences is promoted through a number of professional and learned bodies, of which the Australian and New Zealand Association for the Advancement of Science (ANZAAS) and the Academy of the Social Sciences in Australia are the most broadly based. In addition to encouraging the advancement of the social sciences, the Academy sponsors and organises research, subsidises publications and acts as a consultant and advisor on the social sciences.

Non-government bodies which undertake or promote research in specific fields of the social sciences include the Australian Institute of International Affairs, the Australian Institute of Urban Studies, and the Australian Institute of Political Science.

International activities

International Organisations

Australia participates in the activities of both governmental and non-governmental international scientific organisations. To facilitate scientific liaison and representation, some Government agencies have scientific and technological representation at overseas posts (e.g. Japan, United Kingdom, United States of America, USSR, the International Atomic Energy Association (IAEA) and the OECD). Australia also plays an active role in regional bodies such as ESCAP (formerly ECAFE), the Pacific Science Congress, and the Association for Science Cooperation in Asia (ASCA), and has provided technical assistance to countries in the region under both multilateral and bilateral arrangements.

Australia participates in the programs of the Committee for Scientific and Technological Policy of the OECD.

Participation in international non-governmental scientific bodies is arranged through learned and professional bodies. For example, the Australian Academy of Science provides representation to the International Council of Scientific Unions (ICSU) and a number of its affiliated bodies.

Studentships and Fellowships

Australia has assisted other countries, principally in the Asian and Pacific regions, by training their nationals. Large numbers of such students, mainly seeking first qualifications at tertiary level, have been accommodated under schemes such as the Colombo Plan. There are also arrangements under which established scientists from overseas are assisted to undertake study and research in Australia.

Bilateral Arrangements

Various bilateral arrangements at both government and non-government levels have contributed to the development and maintenance of cooperation in science and technology between Australian institutions and scientists and those in other countries. Formal bilateral agreements solely devoted to scientific and technological cooperation have been entered into with the USA (1968), India (1975) and the Federal Republic of Germany (1976) and are administered by the Department of Science. A fourth such agreement, with the USSR (1975), is administered by the Department of Foreign Affairs. Support is provided for both individual visits and specialist seminars over the whole range of civil science. Where opportunities exist, other cooperative projects which depend on special facilities are supported.

A scientific exchange program between the Australian Academy of Science and the Academy Sinica of Peking was initiated in 1976–77. Scientific fields considered most promising are plant physiology, entomology and earth science. In June 1977 a delegation of senior scientists from China visited Australia.

Visits to Japan by Australian scientists can be supported by the Australia/Japan Foundation, established by the Australian Government in 1976.

Astronomy

In the field of optical astronomy, Australia and Britain are co-operating in the Anglo-Australian telescope project, which involves the operation in Australia of a 3.9 metre reflecting telescope at Siding Springs, New South Wales. The telescope, among the largest in the southern hemisphere, was officially opened in October 1974. Observing time on the telescope is shared equally between Australia and the United Kingdom.

Space

An agreement has been signed by the Governments of Australia and the United States of America to cooperate in the establishment and operation in Australia of space vehicle tracking stations. The agencies for the Australian and the American Governments are the Department of Science and the National Aeronautics and Space Administration (NASA) respectively.

As part of the world-wide network supporting NASA's space program, the stations track spacecraft in their orbits around the earth or on their journeys into space, receive telemetered data from the spacecraft, and relay radio commands controlling the spacecraft.

The Department of Science is responsible for managing, staffing and operating the tracking stations on behalf of NASA. The stations are located at Orroral Valley, Honeysuckle Creek and Tidbinbilla in the Australian Capital Territory. An extensive communications system links them with control centres in the United States of America.

Expenditure by NASA on its tracking station operations in Australia in 1976–77 was approximately $10 million.

High Altitude

The Australian Balloon Launching Station (ABLS) at Mildura, Victoria is operated by the Department of Science under a joint-sponsorship arrangement with the US National Science Foundation. The station provides a service for scientific research, requiring the use of high altitude balloons, to research workers from the USA, Australia and other countries.

Defence

In the field of defence science, Australia collaborates with other countries through a variety of arrangements at intergovernmental level. Further information is given in Chapter 4.

Other

At the non-governmental level, formal arrangements for scientific cooperation with counterpart institutions in other countries have been concluded by a number of Australian bodies. For example, an arrangement covering cooperation in astronomy exists between the University of Sydney and Cornell University (USA), while over a broader area the Australian National University has an arrangement with the University of Moscow which includes exchanges in the scientific fields.

Additional information

Additional information on topics presented in this chapter may be found in the annual reports of the organisations mentioned, particularly the Department of Science, the CSIRO and its divisions, the Australian Atomic Energy Commission, and the Department of Defence. Statistical information for the years 1968–69 and 1973–74 may be found in the reports published by the Department of Science on Project SCORE.

Also relevant are reports published by the former Office of Secondary Industry of the Department of Trade and Industry (*Survey of Industry Research and Development in Australia* 1968–69) and by the former Department of Manufacturing Industry (Bulletin No. 11, November 1974, *R and D in Manufacturing Industry* 1971–72).

CHAPTER 26

CULTURE, RECREATION AND TRAVEL

This chapter is divided into three major sections:

- The cultural activities section consists mainly of a description of cultural organisations and some statistical information concerning financial assistance for the arts.
- The recreation section comprises descriptive information provided by the Department of Environment, Housing and Community Development on four major aspects of leisure: community recreation, fitness, sports development, and youth affairs. Information on tourism, the fifth major aspect of leisure, is provided by the Department of Industry and Commerce. This section also includes the results of a Census of Tourist Accommodiation Establishments for the year ended 30 June 1974, and quarterly accommodation surveys conducted by the Australian Bureau of Statistics.
- The travel section consists mainly of statistics concerning overseas visitors to Australia and Australian residents departing overseas. There is also a short note about travel within Australia.

CULTURAL ACTIVITIES

Cultural organisations and financial assistance for the arts

In Australia the arts are given financial support on several levels. The main sources of subsidy are the Commonwealth and State governments, but support has been increasing recently from local governments and universities. Support from private sources is still limited, but inclusion of the arts in the benefits of private foundations and sponsoring of awards and scholarships is gradually increasing. While support is received indirectly through government educational, cultural and other public service instrumentalities, three organisations have played a significant role in serving and financing the arts: the Arts Council of Australia, the Australian Elizabethan Theatre Trust and the Australia Council.

The Arts Council of Australia

The Arts Council of Australia was founded shortly after World War II. (It should not be confused with the Australia Council mentioned later in this chapter, which is a national government agency for assistance to the arts.) Further details of the Arts Council of Australia are given on page 1,009 of Year Book No. 61.

Australian Elizabethan Theatre Trust

The Australian Elizabethan Theatre Trust, which was established in the mid 1950s, was originally formed to present drama, opera, ballet and puppetry throughout Australia. Full autonomy has now been accorded to most of the performing companies established by the Trust. Only the Marionette Theatre of Australia continues to operate under Trust administration. The Trust's major functions now are to act as entrepreneur in the touring of theatre features from overseas and Australian sources; and to provide general services in communication for theatre organisations.

The Trust receives annual grants from the Federal Government through the Australia Council and from State and local governments. Its revenue is supplemented by subscriptions, donations and its own activities.

The Australia Council

In January 1973 the Prime Minister announced the Government's intention to legislate to establish the Australian Council for the Arts—subsequently to be known as the Australia Council—as a statutory authority; an independent agency to carry out the Commonwealth Government's policies in the arts. The Council became a statutory authority in March 1975.

Within the Council framework there are seven specialist Boards: Theatre (including Drama, Dance and Puppetry); Visual Arts; Music (including Opera); Literature; Crafts; Community Arts; and Aboriginal Arts. The Boards each consist of a maximum of seven members, except for the Aboriginal Arts Board which has a maximum of nine. The Chairman of each Board is also a member of the Council and the Boards are the main source of policy initiatives in their field.

Further details of the Australia Council are given on page 1,010 of Year Book No. 61.

FEDERAL GOVERNMENT FUNDS ALLOCATIONS TO THE AUSTRALIA COUNCIL
($ million)

Year	*1968–69*	*1969–70*	*1970–71*	*1971–72*	*1972–73*	*1973–74*	*1974–75*	*1975–76*	*1976–77*
Budget .	1.67	2.85	3.85	4.58	7.05	15.34	22.24	23.21	23.77

The budgets for 1968–69, 1969–70 and 1970–71 covered Support for the Performing Arts only, and did not include provision for administrative expenses. In those years the Council's administrative expenses budget formed part of the total administrative budget of the then Prime Minister's Department, and were not separately identifiable.

ALLOCATION OF FUNDS FOR PROGRAMS, BOARDS AND ADMINISTRATIVE EXPENSES OF THE AUSTRALIA COUNCIL, 1976-77

	$
Council programs (including Community Arts)	2,576,467
Theatre Board	5,989,706
Visual Arts Board	1,090,886
Music Board	5,197,028
Literature Board	1,253,316
Crafts Board	931,602
Film, Radio and Television(*a*)	1,436,040
Aboriginal Arts Board	1,331,012
Public Lending Right(*b*)	740,557
Administrative expenses.	3,225,755
Total budget	**23,772,369**

(*a*) Functions transferred to the Australian Film Commission in 1976. (*b*) Functions transferred to the Australia Council in 1976.

The National Estate

The Australian Heritage Commission

The Committee of Inquiry into the National Estate, which reported to the Federal Parliament in August 1974, recommended the establishment of a permanent commission to be the Government's policy and advisory body on National Estate matters.

The Act to establish the Australian Heritage Commission was assented to in June 1975. The Commission consists of a part-time independent Chairman and six part-time Commissioners with various skills and interests in the natural and cultural environment. Research and secretariat services for the Commission are provided by a staff of professional and clerical officers permanently located in Canberra.

The Commission's responsibilities are to advise the Minister for Environment, Housing and Community Development on all matters related to the National Estate; to prepare a Register of National Estate places; to develop policies and programs for education, research, professional training and public interest and understanding in fields related to the national estate; and to administer any gifts and bequests made to the Commission.

Australian National Trusts

The Australian National Trusts were founded to further the conservation of lands, places, buildings, works, and articles which are of national importance because of educational, aesthetic, historic, architectural, artistic, scientific, cultural, or other special interest.

The first National Trust, the National Trust of Australia (New South Wales), was formed in 1945. Since then, National Trusts have been formed in each of the other States, the Northern Territory and the Australian Capital Territory. The Trusts in New South Wales, Queensland, South Australia, Western Australia, Tasmania, the Northern Territory and the Australian Capital Territory have statutory authority, and that in Victoria is incorporated under the *Companies Act* of Victoria.

Membership of the National Trusts is open to all individuals and organisations. Total membership throughout Australia is approximately 60,000. The Trusts are financed by members' subscriptions and donations from individuals and commercial and industrial organisations; the proceeds of charges for entry to Trust properties; and the fund-raising activities of members, including inspections of historic buildings. Each State National Trust receives financial support from the Commonwealth Government in the form of an administrative grant-in-aid of $30,000 each per annum, and each receives support from its State Government.

The Australian Council of National Trusts was incorporated in 1965 to co-ordinate the activities of the State National Trusts and represent them at federal and international level. The Commonwealth Government supports the Council through an annual grant of $60,000 for administrative purposes and also provides support to the Council and State Trusts through taxation concessions.

Since 1973, the National Trusts have received substantial grants from the Commonwealth Government under the National Estates program for capital projects, mainly for the restoration of buildings and conservation studies. They have also supervised projects of other organisations financed under the program.

The number of properties owned or controlled by the Trusts exceeds 200. These include houses such as Clarendon (Tas.), nature reserves, a telegraph station, a stock exchange (Charters Towers, Qld), a powder magazine, a market (Castlemaine, Vic.), an inn (Overland Corner, S.A.), a police station, a court house, a gaol, an historic hamlet (Greenborough, W.A.), two paddle steamers and an iron barque, a joss house and a garden (Leura, N.S.W.). The Trusts have established registers of 15,000 places including buildings, urban areas and landscapes which they consider should be preserved as part of the national heritage.

Historic Memorials Committee

The Historic Memorials Committee was established in 1911 for the purpose of securing portraits of distinguished Australians who had taken an active part in Federation. Later the Committee decided to obtain portraits of all Governors-General, Prime Ministers, Presidents of the Senate, Speakers of the House of Representatives, Chief Justices of Australia, and other notable Australians. In addition, the Committee has commissioned paintings recording special events connected with the Commonwealth Parliament.

The performing arts

Festivals

The number of festivals devoted solely or partly to the arts now totals about 400 a year. The two biggest are Adelaide's biennial and Perth's annual festivals, both of which last several weeks and present overseas artists as well as leading Australian companies. Victoria's large popular festival, 'Moomba', has a substantial arts program.

Many country centres now have arts festivals which attract performers and artists from a wide area. Purely amateur and competitive performances are being infused with increased professionalism. Seminars, arts workshops and community participation programs are increasingly popular.

Theatre

Commercial theatre organisations stage musicals and plays and bring to Australia overseas companies such as the Royal Shakespeare Company and the Moscow Circus. Commercial theatre organisations and entrepreneurs occasionally collaborate with government subsidised organisations in arranging joint festival attractions and visits by foreign artists and companies. For further details see Year Book No. 61, page 1012.

Opera

The Australian Opera was created in 1956 and, until late 1969 when it formed its own Board of Directors, was known as the Elizabethan Trust Opera Company. In September 1973 the Australian Opera opened its first season in the new Sydney Opera House. It employs a chorus of 49 singers and 41 principals on a permanent basis.

The 1977 budget for the Australian Opera was $6,123,000. This does not include the cost of the orchestras. Of this total, approximately $2,777,000 comes from State and Federal subsidies or from donations from individuals or industry. The Federal grant was $1,900,000. The remainder was met from box office receipts.

Ballet

The Australian Ballet Foundation was formed in 1961 by the Australian Elizabethan Theatre Trust and J. C. Williamson Theatres Ltd to establish a national ballet company, which gave its first performance on 2 November 1962.

The Australian Ballet receives subsidies from the Federal Government (through the Australia Council), the six State Governments and major municipal bodies. It also receives support from private corporations and individuals. The Australian Ballet has its headquarters and studios in Melbourne.

The 1977 budget for the Australian Ballet was $4,252,000; of this $1,144,000 was met by Commonwealth Government subsidy, and $220,000 by grants from State governments. This figure does not include the services of the Elizabethan Trust Orchestras which perform with the Ballet.

Music

The Music Board of the Australia Council is responsible for administering Commonwealth Government assistance to music and opera. Assistance is provided for a wide range of music activities, one of the most important being the development of Australian music and interest in the work of Australian composers.

Australia has eight fully professional orchestras. Six symphony orchestras have been established—one in each State capital. They are managed by the Australian Broadcasting Commission. Two Elizabethan Theatre Trust orchestras are predominantly engaged in work with the Australian Opera and Ballet. The ABC's Sydney and Melbourne Symphony Orchestras have toured the USA, Asia, Europe and Canada with acclaim.

The ABC also controls a national training orchestra and organises about 750 concerts—both symphony and recital—each year. For further details of the Australian Broadcasting Commission *see* Year Book No. 61, pages 416–18 and 1,013.

Chamber Music

Musica Viva Australia organises tours in Australia by Australian and overseas chamber music ensembles. It is a non-profit making voluntary organisation with over 10,500 members in all States and a small paid administrative staff. The society also assists Australian chamber music groups to tour overseas and has been responsible for helping many Australian groups reach international standards.

Film

Australian Film Commission

The Australian Film Commission, established by the *Australian Film Commission Act* 1975, assists Australian film and television producers with funds and services for the production, distribution and exhibition of Australian films and television programs within Australia and abroad.

The Commission distributes theatrical, non-theatrical film and television productions in Australia and overseas through its representatives at Australian official posts. Non-theatrical distribution in Australia is arranged with State film distribution agencies and through the National Library of Australia.

Between sixty and seventy films are produced annually by the Film Australia Branch with translations into as many as twenty-six languages. These films deal with matters of national interest to Australia and are designed to illustrate or interpret aspects of Australia or of the life and activities of the Australian people.

Film and Television School

The Film and Television School was established as an independent statutory authority by Act of Parliament in 1973 and is governed by a fifteen member Council.

The School's principal activities are:

Full-time program—a three year full-time course providing professional training for creative positions in the film and television industry and for work with film and television in education;

Open programs—providing, on an Australia-wide basis, training courses of shorter duration including workshops, seminars, public lectures and refresher courses for people involved as film makers and video specialists in the audio-visual communications field;

Training assistance and grants-in-aid—administering grants-in-aid to suitably qualified people who may benefit from study, experience or training within Australia or overseas; and

Other activities—conducting programs to assess employment opportunities for graduates, industry training needs, and student research activities, and maintaining an extensive collection of film and television library materials.

In June 1976, as a step towards rationalisation of Government film, radio, television and audio visual production activities, it was decided that the School should become responsible for training in radio and audio visual communications.

Film Censorship

The Federal Government's film censorship powers under the *Customs Act* extend only to imported films and imported advertising matter. Under that Act the Customs (Cinematograph Films) Regulations provide for the appointment of a nine-member Film Censorship Board whose function is to register films and approve advertising matter unless they fall into certain defined categories. Importers may appeal against decisions of the Film Censorship Board to the Films Board of Review.

The Attorney-General's Department is responsible for film censorship and all States have agreed that the Federal Boards should be the censorship authorities for the purpose of the State Acts.

Thirty-five mm feature films: In 1976, 807 feature films (including 18 Australian films) totalling 1,333 hours running time were examined. Forty-four feature films were rejected and 27 were cut. There were 20 appeals of which 6 were upheld and 14 dismissed. Of the 807 features, 129 were classified For General Exhibition ('G'), 148 Not Recommended for Children ('N.R.C.'), 220 For Mature Audiences ('M'), and 190 For Restricted Exhibition ('R'). Seventy-six were registered subject to special conditions.

The principal suppliers were United States of America (250 films), Italy (101 films), Greece (52 films), United Kingdom (67 films), France (63 films) and Hong Kong (82 films).

While the 'M', 'N.R.C.' and 'G' classifications are advisory, persons between the ages of 2 and 18 (6 and 18 in New South Wales and Victoria) are excluded by law from seeing 'R' films.

Sixteen mm feature films: Excluding those imported for television use, 131 feature films (including 7 Australian films) totalling 217 hours were examined.

Television films: In 1976, 8,327 films for use on television were examined. These consisted of 4,929 sixteen mm films (totalling 3,383 hours) and 3,398 videotapes (2,195 hours). The principal suppliers were the United States (6,471 films) and United Kingdom (1,606 films). Of the total imports, 233 films were cut and 34 were classified as unsuitable for television.

Art

The Visual Arts Board

The Visual Arts Board of the Australia Council is responsible for the promotion of excellence in the visual and plastic arts throughout Australia.

In co-operation with the Department of Foreign Affairs, the Board arranges exhibitions of Australian art to tour overseas, and also arranges Australian participation in international art competitions. Exhibitions of important international art tour Australia under the auspices of the Visual Arts Board, sometimes in association with the Australian Gallery Directors' Council.

The Australian National Gallery

With the proclamation of the *National Gallery Act* 1975 in June 1976, the Council of the Australian National Gallery was appointed to conduct the affairs of the Australian National Gallery, which is now a statutory authority. The foundation stone of the Gallery building in Canberra was laid in November 1973, and the building is due for completion in 1980.

The Gallery's collection will include Australian works of all periods; international modern fine and minor arts; graphic arts; ethnic art of Africa and the Pacific Basin; Asian and Far Eastern Art; and film, photographic, theatrical and fashion arts. Since Federation, more than 2,000 Australian works have been acquired.

Other galleries

Other important art collections are housed in the Australian War Memorial and in public galleries in all State capitals and many of the larger country centres. As well as these galleries there are many municipal and private trust institutions, and university and private collections.

Crafts

The Crafts Board of the Australia Council (formed in 1973) is concerned with the promotion of excellence and the understanding of crafts in the community. It has a comprehensive exhibitions program supporting a wide range of craft exhibitions both in Australia and overseas.

Under its grants program the Board funds organisations for equipment purchases, workshops, exhibitions, publications, films and, in some cases, administrative expenses. It makes grants to individuals for workshop establishment and development, study and research, and master craftsman/trainee schemes, and special grants for research and travel.

Museums

In each State there is at least one major State-run museum. There are also many smaller museums owned by municipal councils, district and historical societies, private trusts and private individuals. The two major national museums in the Australian Capital Territory are the Australian War Memorial and the Australian Institute of Anatomy.

Some descriptive detail concerning the more important institutions is given in Year Book No. 55, pages 547–9, and in the State Year Books.

Literature

The Literature Board

From the founding of the Australian Council for the Arts (now the Australia Council), an effort was made through the Literature Board to substantially increase financial assistance to the writing profession. Assistance has increased from $340,000 in 1972-73 to $1,591,800 in 1974-75. Support for creative writers is given through fellowships varying in duration from six months to three years. Writers are also assisted by special grants for research and travel expenses. Other types of grants administered by the Literature Board include assistance to publishers, literary organisations, seminars, visiting speakers, writers' workshops, conferences, poetry readings and pilot schemes for the promotion of creative Australian writing.

National Literature Board of Review

The National Literature Board of Review was established in 1968, following Commonwealth-State agreement, to achieve uniformity in the administration of laws relating to blasphemous, indecent or obscene publications of *prima facie* literary, artistic or scientific merit. In terms of the agreement, the Board is established under the Customs (National Literature Board of Review) Regulations. Appropriate Ministers of any State may, under the Agreement, refer locally published or distributed works to the Board for advice.

Book publishing

Statistics of book publishing are compiled and published by the National Library. The table below shows the number of books and pamphlets (including leaflets) published in Australia in 1973, 1974, 1975 and 1976, and received by the National Library to December 1976, classified by State or Territory of publication and by class of publisher.

AUSTRALIAN BOOKS AND PAMPHLETS PUBLISHED
BY YEAR OF PUBLICATION

(Source: *Australian National Bibliography, National Library of Australia*)

	Number of titles (a)			
	1973	*1974*	*1975*	*1976*
State or Territory—				
New South Wales	1,679	1,701	1,710	763
Victoria	1,136	1,328	1,366	679
Queensland	322	331	341	153
South Australia	468	490	595	227
Western Australia	338	313	313	96
Tasmania	109	84	91	27
Northern Territory	52	70	74	9
Australian Capital Territory	980	1,081	1,188	416
Papua New Guinea	238	139	104	2
Total	*5,322*	*5,537*	*5,782*	*2,372*
Publisher—				
Commercial	1,798	1,966	2,437	1,340
Commonwealth Government	943	1,014	876	357
State Government	779	909	891	249
Local government	45	21	24	2
Society, institution, company, private	1,757	1,627	1,554	424
Total	*5,322*	*5,537*	*5,782*	*2,372*

(*a*) Received by National Library to December 1976.

Libraries

An account of the establishment, growth and functions of the National, Commonwealth and State Libraries is given on pages 533–538 of Year Book No. 55.

Australian Government libraries

National Library of Australia, Canberra. The National Library maintains and develops a national collection of library material which is representative of all the major countries of the world. It is also responsible for assembling a comprehensive collection of library material relating to Australia and the Australian people. In fulfilling the latter statutory function, the Library seeks to preserve books, periodicals, newspapers, government publications, pictures, prints, manuscipts, maps, moving picture films, music scores, sound recordings and other material whether in writing or some other form. Under the deposit provisions of the *Copyright Act* 1968, a copy of all library material published in Australia is delivered to the National Library. The Library has also been enriched by the acquisition of such notable collections as the Petherick collection of 16,500 items in 1911, the Cook manuscripts in 1923, the Compston collection on Public Health in Australia in 1936, the Mathews ornithological collection in 1940, the Rex Nan Kivell collection of 16,000 items of Australian and Pacific interest including original paintings, prints, manuscripts, and printed material in 1959, and the Ferguson collection of Australiana in 1970. The Library maintains a permanent exhibition of paintings, prints and other historical material selected from its various collections.

In association with the State Library of New South Wales, the Library is engaged on a microfilming project to copy original records relating to Australia which are held in Great Britain and other overseas countries. The computer-produced *Australian National Bibliography*, which appears weekly, monthly, four monthly and annually, lists books published in Australia and books dealing wholly or substantially with Australian subjects or written by Australian authors. The publications of the Australian governments included in *Australian National Bibliography* are also listed quarterly and annually in *Australian Government Publications.* A select list of authoritative Australian books of reference and research value is published annually in *Australian Books.* A similar list of serials is published in successive editions under the title *Current Australian Serials.* The Library's *Australian Public Affairs Information Service*, published monthly with annual cumulations, is the major periodical index to Australia's political, economic, social and cultural life. *Australian Maps* has been issued quarterly from 1968 with a 10 year cumulation for the period 1961–1973 and annual cumulations from 1974.

The provision of central cataloguing services is an important function of the National Library aimed at achieving cataloguing economies on a national scale. Established in 1967, the Australian Card Service makes available catalogue cards for titles listed in *Australian National Bibliography.* Since 1970, cards for overseas books have been available from the Overseas Card Service. Australian libraries with access to computer facilities can order machine-readable records for Australian and overseas books through the Australian MARC Record Service. The Library also operates the Australian Cataloguing in Publication Program whereby, as a result of the co-operation of many trade and academic publishers, books published in Australia are catalogued in advance of publication and the cataloguing data are printed in the books. These data also appear as preliminary entries in *Australian National Bibliography*, the Australian MARC Record Service and the Australian Card Service.

Co-operative bibliographical activity includes recording, in a series of union catalogues, the holdings of the major Australian libraries. The national union catalogue of monographs was commenced in 1960 and since then all the larger libraries and an increasing number of smaller libraries have reported their monograph accessions to the National Library. This catalogue is now published on microfilm so that duplicate copies can be held in major research and academic libraries in Australia, Papua New Guinea and New Zealand. Access is thus decentralised and speeded. The second major published union catalogue is the continually updated *Serials in Australian Libraries, Social Sciences and Humanities*, which compliments another catalogue, *Scientific Serials in Australian Libraries*, published by the Commonwealth Scientific and Industrial Research Organization. Both of these are being automated and eventually will be available in microfilm. Other union catalogues maintained and/or published by the National Library cover manuscripts, newspapers, music and oriental language material. All are described in the *Guide to the National Union Catalogue of Australia* which the Library periodically re-issues.

Since 1969 the Library has operated a number of automated data bases which provide computer-produced bibliographies of recent and current material to users either in printed form or on-line. It also provides access through international links to data bases operated elsewhere. A new on-line network, AUSINET, has been developed to give, for the first time in Australia, access from the same terminal to a range of data bases in science and technology, the social sciences and the humanities.

The National Library acts as a central library of documentary and educational films. Its lending collection of approximately 20,000 films contains both Australian and overseas material on a wide range of topics, while its historical collection constitutes the major holding of Australian film production since its beginning in 1896. Additions to the film lending collection are recorded in *Film Acquisitions* published quarterly with annual cumulations.

The National Library's collections of Australian and overseas material contain over 1,725,258 volumes; 28,640 paintings, drawings and prints; 216,607 photographs; 138,795 reels of microfilm; 1,117,672 microfiche pieces; 294,322 microprint/microcard pieces; 2,500 metres of manuscripts; 19,153,000 metres moving picture film; 131,000 stills; 844,030 maps and aerial photographs; 32,558 music scores; 238,000 sound recordings and tapes; and 5,600 oral history tapes.

Patent Office Library. The library of the Australian Patent Trademarks and Designs Office in Canberra contains approximately 10,000 books and a wide variety of periodicals and other literature relating to science, technology, industrial property (patents, trademarks and designs), law and practice. Patent specifications of inventions are received from the principal countries of the world. Present holdings are over 14,500,000. An international index to the specifications is available on microfilm. The Library works in co-operation with the Patent Information Service. Australian Specifications and related material are also available at sub-offices in Brisbane, Sydney, Melbourne, Adelaide and Perth.

Commonwealth Scientific and Industrial Research Organization. The Central Library was brought into the newly formed CSIRO Central Information, Library and Editorial Section at the end of 1973. Its holdings cover the pure and applied sciences. In addition to the Central Library located in East Melbourne, each of the Divisions has specialised collections. The Library maintains a union catalogue of the holdings of all CSIRO libraries, and maintains the constantly-updated *Scientific Serials in Australian Libraries*. With the Information Service, it publishes the monthly *CSIRO Abstracts* and *Australian Science Index*, and directories such as *Australian Scientific Societies and Professional Associations* and *Scientific and Technical Research Centres in Australia*.

The Information Service provides a question-and-answer service and operates the CSIRO Selective Dissemination of Information (SDI) System.

The Australian War Memorial Library, Canberra. In the War Memorial library are preserved the documentary and pictorial records of Australia's participation in armed conflicts. Printed material includes over 80,000 volumes (books and bound periodicals); thousands of unbound periodicals; leaflets; souvenir and microfilm items; a large collection of military maps; newscuttings and newspapers; sound recordings; war posters; postage stamps; and currency. Official and personal records are housed in about 5,200 containers. Official war photographs covering the 1914–18, 1939–45, Korean and Vietnam wars number over 670,000, and there are about 1½ million metres of cinefilm. Facilities exist for reference and research.

The Australian Parliamentary Library. The Library's special function is to provide an information and research service to the Commonwealth Parliament. The two main sections are the Legislative Research Service and the Library and Legislative Information Service. The Research Service comprises six groups staffed by subject specialists who prepare analyses and interpretations of specific issues with which the Parliament is or may be concerned. The Library and Legislative Information Service staffed by Librarians answers questions and provides information. The library collection is concentrated on topical material, supported by a wide collection of standard references; it totals 40,000 titles, including 8,500 serial titles. The library publishes the *Australian Parliamentary Handbook*, which is a standard reference work, occasional annotated reading lists and, in alternate fortnights, *Index to Current Information* and *Select Lists of Acquisitions*.

Other Commonwealth Government libraries. Most Commonwealth Government authorities have specialised collections in their own fields and, in addition, draw largely on the National Library.

Library services in the Territories. The Northern Territory Library Service maintains five centres in the Territory: at Darwin, Nightcliff, Alice Springs, Tennant Creek and Katherine. At 30 June 1974, stocks totalled 67,124 volumes.

The National Library, through its Extension Services Section, conducts the Canberra Public Library Service to residents of the Australian Capital Territory. At 30 June 1977, 489,350 volumes were held.

State libraries

Most municipal councils in the States have libraries funded largely by State governments. A detailed description of State libraries is given in Year Book No. 59, pages 685–690 and in each State Year Book.

Children's libraries and school libraries

Children's libraries exist in all States, usually as branches or extensions of State or municipal libraries. Further details of children's libraries and school libraries are given in Year Book No. 59, pages 689 and 690.

University and college libraries

Since 1957, when the Commonwealth Government inaugurated a comprehensive program of university expansion, there has been notable development of university libraries, and similar development is now taking place in Colleges of Advanced Education. Some current information on university libraries is given in the ABS annual publication *University Statistics—Part 2: Staff and Libraries* (4209.0).

Archives

Australian Archives

The War Archives Committee, established in 1943 by the Prime Minister to arrange for the preservation of war archives, in 1946 became the Commonwealth Archives Committee with responsibility for Commonwealth archives generally. In 1944, the Australian War Memorial and the Commonwealth National Library were designated as archival authorities for the service departments and for other departments respectively. In 1952, the National Library became the sole archival authority for the Commonwealth, and in 1961 the Archives Division of the National Library was reconstituted as the Commonwealth Archives office, a part of the then Prime Minister's Department. In March 1974, the Commonwealth Archives Office was re-named the Australian Archives.

The Australian Archives functions as a central agency for the administration of Commonwealth Government records which are no longer required in the day-to-day business of government. Its headquarters are in Canberra, and it has regional branches in all state capitals and in Darwin and Townsville. In relation to the Government's records management programme, its responsibilities are:

(1) to ensure the preservation of Commonwealth records of permanent value;
(2) to promote efficient and economic management of current Commonwealth records;
(3) to facilitate use of Commonwealth records by members of the public; and
(4) to administer official policy on access to Commonwealth records, most of which are available for consultation by the public when they are thirty years old.

At 30 June 1977, its holdings throughout Australia totalled 252,000 shelf metres of records, including 93,000 metres of permanent value material. During 1976–77, 552 official reference inquiries were received and 276,000 items were issued to Government departments. Some 1,042 public reference inquiries were also received.

The Australian Archives maintains liaison with similar organisations overseas, and is a national member of the International Council on Archives, established under the auspices of UNESCO.

State government archives

State government archives, dating from the beginning of European settlement in 1788, are held, in the case of New South Wales, Tasmania and Victoria, by archives offices established in 1961, 1965 and 1973 respectively; in other States they are held by the archives sections of State libraries.

Australian National University Archives of Business and Labour

The Australian National University Archives was established in 1954 when the records of the Australian Agricultural Company were acquired. In 1959 its collecting activities were expanded to include records of employer and employee organisations. The aim is to gather primary source material to support advanced research in economic history, history and political science. Records of over 100 businesses (164 deposits) and over 100 employer and employee organisations (256 deposits) are held.

The Archives include deposits which have been microfilmed and pamphlet collections of interest to research workers in political history. In addition, an archival program for the University's own records is being developed.

Business Archives Council of Australia

The Business Archives Council of Australia works for the preservation of business records and promotes the writing of business history. The Council itself does not collect business records; the main collecting centres are the Archives of the Australian National University, the University of New England and University of Melbourne. The Australian National University and the University of Melbourne have strong collections covering a wide range of business activity. The former is notable for its holdings of records of pastoral companies; the latter for its holdings of mining companies. In addition, both hold large collections of records of trade unions. The University of New England concentrates on rural industries. The Archives of Wollongong University concentrates on collecting business and trade union records of the Wollongong region.

Other Australian archives

The Mitchell Library has been acquiring manuscript material since the early years of this century. More recently, the National Library, State libraries, some archives offices, a few public libraries and historical societies, the Australian Academy of Science, and the Australian War Memorial (which is also the archival authority for the custody and preservation of operational records of the armed services) have assembled important collections of private papers. Ecclesiastical archives have been set up by some of the churches. Some firms have established their own archives services and the Business Archives Council plays a co-ordinating role. State and local historical societies help to preserve regional, local and private historical material.

Botanical and zoological gardens

In addition to the zoological gardens referred to in the following paragraphs there are numerous privately-owned zoos and sanctuaries, many of them at tourist resorts, which maintain collections of Australian flora and fauna. There are also various national parks, forests, reserves, etc. dedicated for public use which are preserved largely in their natural condition. More detailed information is given in each State year book.

New South Wales: The Sydney Botanic Gardens are situated on the shores of Farm Cove, Sydney Harbour. They occupy 27 hectares and contain a large collection of flowering plants, shrubs and trees as well as hothouses of orchids and ferns.

The Zoological Gardens at Taronga Park, on the northern side of Sydney Harbour, are administered by the Zoological Parks Board and occupy about 30 hectares including an aquarium. In 1976–77 paid admissions to the grounds were 885,086. During 1976–77, income of the Zoological Parks Board was $2,032,000, while expenditure amounted to $1,989,000. Exhibits at 30 June 1977 comprised 685 mammals, 1,575 birds, 387 reptiles, 121 invertebrates and 1,089 fish.

The open range Western Plains Zoo, occupying about 300 hectares and opened on 28 February 1977, is also under the administration of the Zoological Parks Board of New South Wales. Paid admissions were 66,274 to 30 June 1977, at which date there were 418 mammals and 251 birds which could be viewed in a natural environment.

Victoria: The main botanical gardens in the State are the Royal Botanic Gardens, an area of 36 hectares within 1.6 kilometres of the centre of the City of Melbourne. The gardens contain over 12,000 species of plants, of which there are some 30,000 individual specimens. Many species of native birds breed on islands in lakes within the gardens. In October 1970, an extension was made to the Royal Botanic Gardens by the purchase of 160 hectares at Cranbourne on Mornington Peninsula for a Botanic Gardens and Research Institute devoted to the growing, displaying and studying of Australian native plants.

The Zoological Gardens in Royal Park contain a wide selection of animals, birds and reptiles. A wildlife sanctuary is also maintained at Healesville.

Queensland: Botanical gardens have been established in Brisbane and in several other cities. The Brisbane Botanic Gardens occupy approximately 18 hectares on the banks of the Brisbane River in the central city area and are noted for their collections of palms, tropical trees and shrubs, and succulents; they contain over 8,000 species.

The completion of the new botanic gardens in the foothills of Mount Coot-tha, about 5 kilometres from central Brisbane, is expected by 1980. The area being developed is approximately 75 hectares.

South Australia: The Adelaide Botanic Garden covers 20 hectares and contains collections of Australian and exotic plants from low rainfall and sub-tropical regions. In glasshouses are collections of tropical, ornamental and economic plants. Special collections include cacti and succulents, bromeliads, and begonias. An up-to-date comprehensive botanical and horticultural library is maintained. The State Herbarium, established in 1954, contains about 250,000 specimens. Blackwood and Mount Lofty also have important plant collections.

The Zoological Gardens, opened in 1883, have an area of approximately 8 hectares, and contain a fine collection of animals, reptiles and birds.

Western Australia: A botanical garden and arboretum which contain approximately 1,200 species of native Western Australia plants and trees are established in Kings Park, a reserve of about 400 hectares close to the centre of Perth.

The Zoological Gardens of 18 hectares at South Perth specialise in the collection of Australian —and particularly Western Australian—fauna.

Tasmania: The Royal Tasmanian Botanical Gardens adjoining Government House of the Queen's Domain contain a fine collection of exotic trees and shrubs and a small aviary.

Northern Territory: The Darwin Botanical Gardens occupy 30 hectares and feature 12 hectares of tropical plants of both native and overseas origin. Two hectares are used for an amphitheatre and contain a number of native and exotic plants. The Gardens are controlled by the Corporation of the City of Darwin. The Gardens were extensively damaged by Cyclone Tracy in December 1974 and, along with an extensive planting of palm and rain forest species, every effort has been made to restore and improve the Gardens.

Australian Capital Territory: The Canberra Botanic Gardens, a 40 hectare site on the lower slopes of Black Mountain, have been under development since 1950. The Gardens, comprising Australian native plants, were officially opened in 1970.

The Tidbinbilla Nature Reserve covers 5,515 hectares of the Upper Tidbinbilla Valley about 40 kilometres from Canberra. It was declared a Nature Reserve under the Public Parks Ordinance in 1964. Attendances have risen from 42,700 in 1967 to 151,000 in 1976.

The Nature Reserve at Jervis Bay consists of 4,470 hectares of outstanding coastal area featuring diverse vegetation communities and varied wildlife. The reserve covers two thirds of the total area of Jervis Bay.

RECREATION

The Department of Environment, Housing and Community Development was established in December 1975 and assumed responsibility for, among other things, co-ordinating such aspects of leisure as community recreation, fitness, sports development, and youth affairs.

All State governments have also established agencies with special responsibilities for recreation and sport. Some local government authorities are now employing recreation workers who are responsible for planning the use of recreation facilities, and for devising programs of community recreation.

Community recreation

Late in 1974 the Commonwealth and Victorian Governments conducted a study into the attitudes of Victorians towards fitness and active recreation. The findings of this study were the basis of a five-year 'Life. Be In It' strategy. Victoria implemented this strategy in November 1975 and, as the national value of the program was recognised, the Commonwealth and other State Governments were closely involved. In 1977, Commonwealth, State and Territory Ministers responsible for recreation agreed to co-operate in an Australia-wide 'Life. Be In It' program. The Department of Environment, Housing and Community Development is contributing $1.8 million over three years and is co-ordinating national aspects of the program.

A study to identify the future needs of voluntary recreation workers is being conducted in co-operation with State Government departments.

The Department continues to work in co-operation with State Government departments to develop recreation planning.

Sports development

During 1977–78, national sporting organisations are to receive $1 million in Commonwealth Government assistance through a sports development program. Assistance will be available in the following general categories: international competition; national coaching schemes; development projects for national sporting associations; and research and information dissemination.

In making these grants the Minister for Environment, Housing and Community Development is to be assisted by a six member Sports Advisory Council.

Since 1951, the Commonwealth Government has provided grants for both the Royal Life Saving Society and the Surf Life Saving Association of Australia. In 1977–78, the Government provided $60,000 to the Royal Life Saving Society for administrative purposes and $280,000 to the Surf Life Saving Association. Of this amount, $140,000 was provided on a dollar for dollar subsidy basis for the purchase of rescue equipment for clubs, branches and State Centres; $86,000 for administrative purposes; $46,000 for special projects; and $8,000 to assist needy clubs to purchase rescue equipment.

Youth affairs

An Office of Youth Affairs has been established within the Department of Environment, Housing and Community Development.

The functions of the Office are: to seek greater co-ordination and consultation between Commonwealth Government programs and proposals affecting youth; to seek greater co-ordination and consultation with State governments, local government and non-government agencies in relation to Commonwealth programs and proposals affecting youth; to build up a research and information capacity to complement and increase the effectiveness of similar activities in functional departments; and to advise on youth needs and to assist those designing specific and general programs and services.

The Office works closely with both the voluntary and government sectors with the aim of enabling young people to communicate more easily with government.

Most specific youth activities and programs in Australia are provided by voluntary youth organisations, many of which are organised nationally. The Commonwealth Government provides financial assistance to some of these national organisations to enable them to better serve young people and the community in general. In 1976–77, $154,000 was paid to youth organisations; a further $155,000 has been set aside for this purpose in 1977–78.

Tourism

The Department of Industry and Commerce is responsible for overseas and domestic tourism. The Department is involved in a range of policy, administrative and consultative activities designed to encourage the efficient development of tourism in Australia in co-operation with the industry and with Commonwealth and State government departments. Major functions of the department include: formulation of policy proposals, transmission of advice to the Minister on industry problems, administration of the *Australian Tourist Commission Act*, conduct of research into the tourist and travel industries, provision of secretarial support to the Tourist Ministers Council and Australian Standing Committee on Tourism and liaison with international tourism organisations.

On 1 December 1976 the Government established a Parliamentary Select Committee on Tourism. The Committee's terms of reference are to examine the nature of the industry, report on problems and recommend solutions. The Committee is expected to report during 1978.

Australian Tourist Commission

The Australian Tourist Commission was established in 1967 as a statutory body to encourage people from other countries to visit and travel within Australia. It has nine commissioners including representatives of the Commonwealth and State governments and the tourist industry. In 1977–78 its budget was $2.8 million.

The Commission engages in a wide variety of marketing activities including consumer and trade advertising, industry seminars and familiarisation visits for travel agents, journalists and photographers. The Commission has its head office in Melbourne and branch offices in London, Frankfurt, New York, Los Angeles, Tokyo, Auckland and Sydney.

Tourist Accommodation

Census of Tourist Accommodation Establishments. A Census of Tourist Accommodation Establishments was conducted by the ABS in respect of the year ended 30 June 1974 to identify and measure the amount, type and location of tourist accommodation available throughout Australia.

For detailed statistics from the Census *see Census of Tourist Accommodation Establishments, Australia and Australian Capital Territory, Year Ended 30 June* 1974 (8637.0) and *Census of Tourist Accommodation Establishments*, 1973–74 published by the Deputy Commonwealth Statistician in each State.

Surveys of Tourist Accommodation Establishments. Quarterly accommodation surveys were commenced in the September Quarter 1975 and data published from these surveys include room occupancy, bed occupancy, takings from accommodation and employment.

The main purpose of the surveys of tourist accommodation establishments is to measure the utilisation of available tourist accommodation. For detailed statistics from the surveys *see Tourist Accommodation* (8635.0).

TOURIST ACCOMMODATION (*a*) (*b*)
(number)

	Licensed hotels with facilities(c)	*Motels, etc.(c)*	*Licensed hotels, private hotels and guest houses without facilities(c)*	*Total*
June Quarter 1977—				
Establishments	910	2,018	2,278	5,206
Guest rooms	24,222	50,365	30,766	105,353
Bed spaces	54,418	141,900	52,348	248,666

(*a*) For the purposes of this survey, hotels, motels and guest houses which provide predominantly short-term accommodation (i.e. for periods of less than two months) to the general public and which provide breakfast. (*b*) Excludes Northern Territory. (*c*) For definitions *see* the publication *Tourist Accommodation* (8635.0).

TOURIST ACCOMMODATION (*a*) (*b*)

		June quarter 1976	*September quarter 1976*	*December quarter 1976*	*March quarter 1977*	*June quarter 1977*
LICENSED HOTELS WITH FACILITIES(*c*)						
Room occupancy rates	%	50.7	52.4	52.0	55.3	53.1
Bed occupancy rates	%	34.7	36.2	34.6	38.5	35.5
Gross takings from accommodation	$'000	22,069	24,018	23,623	25,257	25,309
Employment at end of period—						
Full-time	Persons	15,643	15,852	15,609	15,024	14,843
Other	,,	15,611	16,024	16,774	16,203	15,728
Total	,,	31,254	31,876	32,383	31,227	30,571
MOTELS, ETC.(*c*)						
Room occupancy rates	%	59.0	60.3	57.3	61.3	59.6
Bed occupancy rates	%	37.4	38.6	35.9	41.3	38.1
Gross takings from accommodation	$'000	48,426	51,592	49,836	57,068	55,417
Employment at end of period—						
Full-time	Persons	9,869	10,112	9,890	10,311	10,457
Other	,,	9,743	10,171	10,196	9,986	9,559
Total	,,	19,612	20,283	20,086	20,297	20,016
LICENSED HOTELS, PRIVATE HOTELS AND GUEST HOUSES WITHOUT FACILITIES(*c*)						
Room occupancy rates	%	30.2	30.3	29.7	31.0	29.[illegible]
Bed occupancy rates	%	23.3	23.5	22.7	24.4	22.6
Gross takings from accommodation	$'000	7,213	7,450	7,315	7,574	7,081
Employment at end of period—						
Full-time	Persons	11,881	11,578	11,436	10,992	10,644
Other	,,	11,400	11,510	11,943	11,463	10,624
Total	,,	23,281	23,088	23,379	22,455	21,268
TOTAL						
Room occupancy rates	%	48.0	49.2	47.6	51.0	49.3
Bed occupancy rates	%	33.6	34.6	32.6	37.0	34.2
Gross takings from accommodation	$'000	77,708	83,061	80,774	89,899	87,807
Employment at end of period—						
Full-time	Persons	37,393	37,542	36,935	36,327	35,944
Other	,,	36,754	37,705	38,913	37,652	35,911
Total	,,	74,147	75,247	75,848	73,979	71,855

For footnotes see previous table.

For a more detailed description of the surveys *see* the quarterly publication *Tourist Accommodation* (8635.0). Summary information on foreign ownership and control of tourist accommodation establishments is shown in Chapter 24. More detailed statistics are available in *Foreign Ownership and Control of Tourist Accommodation Establishments* (latest issue 1973–74) (5319.0).

TRAVEL

An article outlining the history and growth of travel and the structure of tourist organisations in Australia, prepared by the Australian National Travel Association, appeared in Year Book No. 52, pages 1158–84. The following pages contain statistics of internal travel and travel to and from Australia, together with some descriptive matter.

Internal travel

In 1973–74, the first national survey of the Australian travel market was undertaken. The survey showed that Australians took an average of two trips of at least one night duration away from home. Fifty per cent of these trips lasted two nights or less and approximately 85 per cent of trips were intra-State trips only. One quarter of all trips, and over one half of all trips classified as main holidays, were taken in December and January. Car travel was the means of transport for 86 per cent of all trips. Private house accommodation was used in over 40 per cent of trips, with hotels and motels accounting for a further 20 per cent.

Overseas travel

Statistics about travellers to and from Australia are classified in the first instance by the actual or intended length of stay in Australia or abroad; this classification distinguishes between long-term and short-term movement.

Statistics of permanent and long-term movement are shown in Chapter 6, Demography.

Traveller statistics (overseas visitors and Australian residents)

Statistics of short-term arrivals and departures which are in the nature of travel statistics are given below.

Short-term movement is defined as comprising visitors arriving and Australian residents departing temporarily with the intention of staying in Australia or abroad for less than twelve months, together with the departure of visitors and the return of Australian residents who have stayed in Australia or abroad for less than twelve months.

Short-term movement excludes persons who arrive in and depart from Australia on the same ship's voyage or on the same flight (variously called direct transit or 'through' passengers) or who change flights without leaving the airport's transit area; passengers on pleasure cruises commencing and finishing in Australia; and all crew. However, it includes persons who pass through the Customs Barrier and declare the purpose of their visit to Australia to be 'in transit'. Short-term visitors are more numerous than long-term visitors and have come to be regarded as 'tourists' by many users of the statistics.

From October 1967 to December 1971, 276,885 United States troops came to Australia on rest and recreation leave. The last of them completed their leave in January 1972. For statistical purposes they were classified as short-term visitors travelling by air for holiday purposes and their country of residence and country of embarkation or disembarkation were shown as 'Asia—other'.

SUMMARY OF SHORT-TERM TRAVELLER STATISTICS

	Overseas visitors		*Australian residents*	
	Arriving in Australia	*Departing from Australia*	*Departing from Australia*	*Arriving in Australia*
Annual average—				
1951–1955	48,165	49,111	43,390	42,596
1956–1960	67,744	68,430	61,922	61,224
1961–1965	131,461	135,006	97,041	118,624
1966–1970	297,275	308,325	259,700	258,824
1971–1975	475,925	479,015	631,446	647,608
Year—				
1971	432,393	450,022	412,598	413,917
1972	426,403	441,320	490,962	504,519
1973	472,124	481,901	620,842	638,141
1974	532,683	515,378	752,218	769,650
1975	516,023	506,454	880,609	911,815
1976	531,868	512,468	968,265	973,799

In addition to the basic classification of travellers shown above, certain other characteristics are ascertained. These characteristics are: sex, age, marital status, country of citizenship, country of birth, occupation, intended and actual length of stay, purpose of journey, mode of transport, country of residence, country of embarkation or disembarkation, State of residence and State of embarkation or disembarkation.

The categories shown in the previous table are cross-classified by various characteristics listed above and resulting statistics are shown in considerable detail in the quarterly and annual bulletins *Overseas Arrivals and Departures* (3402 0 and 3404 0) Certain unpublished information is available on request. Selected traveller statistics are shown in the following tables.

Short-term travel is subject to marked seasonal variation, December being the peak month for the arrival of visitors and the departure of Australian residents.

OVERSEAS VISITORS AND AUSTRALIAN RESIDENTS: SHORT-TERM ARRIVALS AND DEPARTURES BY MONTH OF ARRIVAL OR DEPARTURE AND MODE OF TRANSPORT AUSTRALIA, 1976

	Overseas visitors						*Australian residents*					
	Arriving			*Departing*			*Departing*			*Returning*		
Month	*By sea*	*By air*	*Total*	*By sea*	*By air*	*Total*	*By sea*	*By air*	*Total*	*By sea*	*By air*	*Total*
January .	687	47,074	47,761	839	65,374	66,213	2,411	73,397	75,808	1,482	141,931	143,413
February .	651	49,206	49,857	752	48,671	49,423	2,997	51,700	54,698	1,079	75,289	76,368
March .	1,284	44,820	46,104	808	46,007	46,816	2,823	82,164	84,987	2,787	59,111	61,898
April .	305	36,970	37,275	421	40,565	40,986	1,768	72,840	74,608	660	55,282	55,942
May . .	710	36,911	37,621	619	42,365	42,984	3,655	100,199	103,854	1,634	78,952	80,586
June . .	545	29,528	30,073	138	28,221	28,359	1,133	80,861	81,994	1,607	59,392	60,999
July . .	495	34,626	35,121	373	29,589	29,962	1,257	75,749	77,006	1,547	69,100	70,647
August .	558	43,576	44,134	611	40,907	41,518	2,017	101,592	103,609	1,547	86,730	88,277
September .	414	35,639	36,053	301	38,255	38,556	995	61,882	62,877	817	112,648	113,465
October .	1,253	45,562	46,815	524	38,496	39,020	1,700	58,992	60,692	2,098	95,366	97,464
November .	569	53,114	53,683	617	45,954	46,571	1,285	57,534	58,819	806	64,797	65,603
December .	2,166	65,205	67,371	442	41,618	42,060	1,300	133,547	134,847	2,459	51,143	53,602
Total .	**9,637**	**522,231**	**531,868**	**6,445**	**506,022**	**512,468**	**23,341**	**950,458**	**973,799**	**18,523**	**949,742**	**968,265**

The following tables show the stated purpose of journey and intended length of stay abroad of Australian residents departing temporarily, and the stated purpose of journey and intended length of stay in Australia of overseas visitors arriving.

AUSTRALIAN RESIDENTS DEPARTING—SHORT-TERM MOVEMENT: STATED PURPOSE OF JOURNEY AND INTENDED LENGTH OF STAY, 1976

(Persons)

	Stated purpose of journey									
Intended length of stay	*In transit*	*Convention*	*Business*	*Accompanying business traveller*	*Visiting relatives*	*Holiday*	*Employment*	*Education*	*Other and not stated*	*Total*
Under 1 week . . .	..	1,029	15,737	842	3,244	11,359	1,134	110	3,605	37,062
1 week and under 2 weeks .	..	3,940	17,081	1,820	6,989	80,185	1,100	1,500	6,766	119,383
2 weeks and under 3 weeks .	..	4,231	16,298	2,249	12,346	165,413	678	811	9,575	211,601
3 weeks and under 1 month .	..	2,510	9,546	1,165	17,209	73,676	413	532	5,240	110,292
1 month and under 2 months.	..	296	21,996	2,982	44,453	91,276	1,472	802	9,229	172,508
2 months and under 3 months	..	..	9,181	1,773	31,517	46,109	988	441	6,154	96,167
3 months and under 6 months	..	..	4,636	1,396	36,390	56,673	1,908	720	6,421	108,141
6 months and under 9 months	..	..	2,149	1,323	20,513	39,828	2,084	461	5,043	71,398
9 months and under 12 months	..	..	1,578	1,776	5,790	12,483	3,423	985	4,087	30,120
Indefinite, not stated . .	..	..	1,165	635	2,703	8,516	515	146	3,449	17,129
Total	..	**12,007**	**99,364**	**15,962**	**181,152**	**585,520**	**13,715**	**6,508**	**59,571**	**973,799**

OVERSEAS VISITORS ARRIVING—SHORT-TERM MOVEMENT: STATED PURPOSE OF JOURNEY AND INTENDED LENGTH OF STAY, 1976

(Persons)

	Stated purpose of journey									
Intended length of stay	*In transit*	*Convention*	*Business*	*Accompanying business traveller*	*Visiting relatives*	*Holidaying*	*Employment*	*Education*	*Other and not stated*	*Total*
Short-term movement—										
Under 1 week	62,834	1,323	23,591	1,195	5,996	39,470	1,426	206	7,539	143,578
1 week and under 2 weeks	2,582	3,109	20,320	1,570	10,054	39,825	437	203	4,572	82,674
2 weeks and under 3 weeks	731	1,934	12,475	1,020	14,031	26,869	303	239	3,629	61,231
3 weeks and under 1 month	316	750	4,559	353	16,369	15,688	122	95	2,193	40,442
1 month and under 2 months	..	..	7,389	604	36,004	26,478	458	303	5,388	76,623
2 months and under 3 months	..	..	2,192	142	17,147	9,887	516	498	1,877	32,256
3 months and under 6 months	..	..	2,028	492	23,670	11,192	1,743	3,355	3,767	46,250
6 months and under 9 months	..	..	852	382	11,316	6,382	2,529	866	2,121	24,448
9 months and under 12 months	..	..	864	699	1,194	2,640	4,731	4,370	1,963	16,459
Indefinite, not stated	..	..	957	228	1,558	2,228	454	216	2,263	7,904
Total	**66,462**	**7,116**	**75,228**	**6,685**	**137,343**	**180,661**	**12,717**	**10,351**	**35,308**	**531,868**

The average intended length of stay abroad of Australian residents departing in 1976 for short-term visits abroad was 68 days. The average intended length of stay in Australia by short-term visitors from overseas was 52 days. Of course, statistics for Australian residents refer to their total time away from Australia; for overseas visitors they refer only to the Australian portions of their trips.

In both cases, the majority of travellers are on holiday. A significantly higher proportion of overseas visitors are in Australia for the purpose of education, reflecting the number of students coming to Australia from South-East Asia.

OVERSEAS VISITORS ARRIVING BY COUNTRY OF RESIDENCE AND INTENDED LENGTH OF STAY, AND AUSTRALIAN RESIDENTS DEPARTING BY COUNTRY OF INTENDED STAY AND INTENDED LENGTH OF STAY: AUSTRALIA, 1976

	Overseas visitors arriving—intended length of stay						*Australian residents departing—intended length of stay*					
Country of residence (visitors) and country of intended stay (residents)	*Under 1 week*	*1 week and under 1 month*	*1 month and under 3 months*	*3 months and under 12 months*	*Indefinite, not stated, etc.*	*Total*	*Under 1 week*	*1 week and under 1 month*	*1 month and under 3 months*	*3 months and under 12 months*	*Indefinite, not stated, etc.*	*Total*
Africa—												
South Africa	1,062	1,280	963	653	39	3,997	1,131		2,082	1,091	67	4,371
Other	749	509	948	568	66	2,837	862		2,202	1,102	112	4,278
Total, Africa	*1,809*	*1,789*	*1,911*	*1,221*	*105*	*6,834*	*80*	*1,913*	*4,284*	*2,194*	*179*	*8,650*
America—												
Canada	2,862	6,978	5,024	2,385	156	17,401	130	2,580	5,413	2,848	218	11,190
U.S. America	26,508	33,362	10,047	5,022	749	75,687	1,199	39,088	33,259	11,053	1,327	85,926
Other	981	865	754	683	177	3,461	1,095		2,818	1,866	136	5,915
Total, America	*30,351*	*41,204*	*15,823*	*8,090*	*1,082*	*96,549*	*1,373*	*42,721*	*41,489*	*15,766*	*1,681*	*103,030*
Asia—												
Hong Kong	2,662	4,193	2,433	961	185	10,433	2,451	30,997	4,125	1,495	640	39,708
India	1,146	1,003	704	683	90	3,624	130	1,718	3,312	761	124	6,045
Indonesia	1,765	2,037	1,455	949	120	6,324	796	19,751	5,747	2,414	446	29,154
Israel	82	235	496	345	31	1,188	320		2,505	1,057	82	3,956
Japan	15,156	8,564	1,665	1,130	346	26,860	550	13,452	3,231	675	251	18,159
Malaysia	1,883	2,951	2,100	3,140	126	10,198	771	12,938	4,105	1,891	287	19,988
Philippines	789	909	491	355	58	2,602	480	6,175	1,962	550	128	9,295
Singapore	2,238	3,936	2,111	847	114	9,245	2,944	34,724	3,425	1,264	581	42,938
Thailand	650	929	567	478	58	2,680	450	6,728	1,557	371	110	9,217
Other and unspecified	1,922	1,943	1,674	1,807	272	7,634	270	6,122	4,581	6,794	351	18,020
Total, Asia	*28,292*	*26,700*	*13,693*	*10,692*	*1,410*	*80,787*	*8,852*	*132,903*	*34,553*	*17,176*	*3,000*	*196,480*
Europe—												
Austria	387	200	342	476	30	1,434	290		1,851	1,296	77	3,516
France	1,486	1,403	955	715	87	4,646	80	960	2,968	1,872	114	5,994
Germany(*a*)	3,087	2,897	3,273	2,848	232	12,337	100	1,774	8,729	5,750	261	16,612
Greece	557	456	953	2,023	114	4,102	100	1,469	5,826	23,277	858	31,530
Italy	1,395	1,651	2,193	3,046	220	8,505	220	1,982	10,949	22,763	674	36,586
Netherlands	1,732	1,565	2,833	2,728	70	8,929	124	973	6,532	4,504	190	12,322
Switzerland	1,132	1,062	894	623	48	3,758	..	531	1,701	929	55	3,215
U.K. and Ireland	11,356	15,049	24,517	22,270	672	73,862	1,072	13,607	85,942	65,525	2,603	168,747
U.S.S.R.	306	244	308	184	38	1,080	..	310	760	314	16	1,400
Yugoslavia	180	239	530	2,006	81	3,036	..	190	3,201	11,259	286	14,937
Other and unspecified	2,459	2,619	2,103	2,755	231	10,162	150	1,571	12,033	16,513	699	30,970
Total, Europe	*24,075*	*27,383*	*38,899*	*39,673*	*1,823*	*131,851*	*1,867*	*23,636*	*140,488*	*154,007*	*5,833*	*325,829*
Oceania—												
Fiji	2,658	2,917	1,462	870	89	7,996	3,647	42,161	1,636	758	777	48,977
New Caledonia	2,348	1,769	2,160	629	133	7,036	1,409	10,549	379	217	218	12,771
Papua New Guinea	8,100	6,647	8,944	5,107	280	29,078	3,050	7,554	5,084	4,443	475	20,603
New Hebrides	219	265	420	188	29	1,119	110	2,752	217	105	63	3,248
New Zealand	38,583	69,215	21,527	17,049	1,734	148,108	13,755	153,947	31,833	9,128	3,147	211,808
Norfolk Island	312	431	80	72	24	917	609	8,484	270	111	202	9,676
Other	1,838	907	749	940	53	4,496	653	3,092	1,009	530	101	5,393
Total, Oceania	*54,057*	*82,153*	*35,341*	*24,854*	*2,342*	*198,750*	*23,234*	*228,539*	*40,429*	*15,291*	*4,983*	*312,475*
Other	4,991	5,123	3,213	2,625	1,142	17,096	1,657	11,566	7,433	5,226	1,453	27,334
Total	**143,578**	**184,347**	**108,879**	**87,157**	**7,904**	**531,868**	**37,062**	**441,276**	**268,675**	**209,659**	**17,129**	**973,799**

(*a*) Comprises the German Democratic Republic and the Federal Republic of Germany.

CHAPTER 27

THE TERRITORIES OF AUSTRALIA

The internal Territories of Australia are the Northern Territory and the Australian Capital Territory. External Territories under the control of Australia are: Norfolk Island; the Territory of Heard and McDonald Islands; the Australian Antarctic Territory; the Territory of Cocos (Keeling) Islands; and the Territory of Christmas Island. There is also the Territory of Ashmore and Cartier Islands, deemed to form part of the Northern Territory.

Information on all Territories except Ashmore and Cartier Islands is contained in the following pages, and details of the acquisition of all the Territories will be found on pages 5, 6, and 7 of Chapter 1. More detailed statistics and additional descriptive matter are to be found in the Annual Reports of the Administrations of the various Territories and in the *Northern Territory Statistical Summary* (1306.0) and the *Australian Capital Territory Statistical Summary* (1307.0) issued by the Bureau. Statistics for the Northern Territory and the Australian Capital Territory are also included in chapters dealing with particular subjects.

THE NORTHERN TERRITORY

General description

The total area of the Northern Territory is 1,346,200 square kilometres.

Area, legislation and administration

Upon the extension of New South Wales westwards to the 129th east meridian in 1825, the Northern Territory was incorporated in that colony, but in 1863 it was annexed by Royal Letters Patent to the province of South Australia. With the adjacent islands, it was transferred to the Commonwealth on 1 January 1911. The terms of the transfer were outlined in Year Book No. 15, page 940.

The *Northern Territory* (*Administration*) *Act* 1910 provides for an Administrator, appointed by the Govenor-General, to administer the Territory on behalf of the Commonwealth Government.

In 1974 the Act was amended to provide for the establishment of a Legislative Assembly for the Northern Territory to make Ordinances for the peace, order and good government of the Northern Territory. The Assembly consists of 19 elected members including a Speaker elected by the members. The first meeting of the new Assembly was held on 20 November 1974. The Assembly replaces the Legislative Council for the Northern Territory, which held its last meeting on 26 September 1974, and consisted of 6 official members and 11 elected members with a President elected from among the elected members.

Ordinances passed by the Legislative Assembly are presented to the Administrator for assent. The Administrator is required by the Act to reserve Ordinances relating to certain matters, including Crown Lands and the Aboriginal inhabitants of the Territory, for the Governor-General's pleasure; others he may assent to, withhold assent from or return to the Legislative Assembly with recommended amendments.

The Governor-General may, within six months, disallow any Ordinance assented to by the Administrator and, in respect of an Ordinance reserved for his pleasure, he may assent, withhold assent, withhold assent to part of the Ordinance and assent to the remainder, or recommend to the Administrator any amendments to the laws of the Territory that he considers desirable arising out of his consideration of the Ordinance. Ordinances passed by the Legislative Assembly, whether assented to or withheld partially or in full from assent, are to be laid before each House of Parliament as soon as practicable.

The Act also provides for an Administrator's Council to advise the Administrator on any matter referred to it, either by the Administrator or in accordance with the provisions of any Ordinance of the Territory. The Administrator's Council consists of the Administrator and 5 members of the Assembly.

The Territory elects one member to the House of Representatives and, since 1975, two Senators to the Senate.

There is a Commonwealth Department of the Northern Territory which carries out the day to day administration of the Territory together with other Commonwealth Departments—Attorney-General's, Health, Education and Aboriginal Affairs.

The Commonwealth Government has commenced a programme of transferring executive powers to the Legislative Assembly by 1 July 1979. Previously, the Assembly had legislative powers only.

A separate Northern Territory Public Service was created on 1 January 1977 and administrative powers in connection with a number of State-like services, including police, fire brigade, correctional services and local government administration, were transferred. Subsequent transfers are to take place on 1 January 1978, 1 July 1978 and 1 July 1979.

It is proposed to create a government of the Northern Territory with Ministers having control over and responsibility for its own finances as from 1 July 1978.

The Northern Territory has two Local Government Councils: the Corporation of the City of Darwin, established in 1957, and the Corporation of the Municipality of Alice Springs, established in 1971. The Darwin Corporation consists of the Mayor and ten aldermen and the Alice Springs Corporation consists of the Mayor and eight aldermen. Town Management Boards are established in Katherine and Tennant Creek, each consisting of five elected members and four members appointed by the Administrator. The function of each Board is to advise the Administrator on local matters.

The Darwin Reconstruction Commission, which was established by the Commonwealth Government for the purpose of rebuilding Darwin following the city's devastation by Cyclone Tracy on Christmas Day 1974, ceased operations in December 1977.

The remaining centres of the Territory are administered under mining leases, by Aboriginal community councils, by church missions or directly by the Department of the Northern Territory.

Nhulunbuy township is administered under lease by the Nhulunbuy Corporation, a subsidiary company of Nabalco Pty Ltd, which conducts a large bauxite mining operation on Gove Peninsula. The Company employs a Town Administrator and the Government is represented by a Departmental Officer. A similar arrangement applies to mining operations on Groote Eylandt.

Physical geography

The Territory is within the torrid zone, with the exception of a strip about 300 kilometres wide which lies south of the Tropic of Capricorn.

The low flat coastline seldom reaches a height of 30 metres. Sandy beaches and mud flats, thickly fringed with mangroves, prevail. Sandstone, marl and laterite form the occasional cliffy headlands. The coastline of 6,200 kilometres is indented by bays and inlets and intersected by numerous rivers, many of which are navigable for considerable distances from their estuaries. The only practicable deep-water port for general use, however, is Darwin.

Inland, the country generally is devoid of conspicuous landmarks. From the coast there is a general rise southwards to the vicinity of the seventeenth or eighteenth parallel of south latitude, where the higher lands form the watershed between the rivers that flow northwards to the sea and those that form the scanty supply for the interior system. Towards the centre of the continent the land over a wide area is of considerable elevation, and there are several mountain ranges, generally with an east and west trend.

Climate, fauna and flora

There are two main climatic divisions: the wet season, November to April; and the dry season, May to October. The changes of weather are uniform and regular. Nearly all the rainfall occurs in the summer months.

The ordinary types of native Australian fauna inhabit the Territory. As elsewhere on the continent, the higher *Theria* are rare, but marsupials, birds, crocodiles, fresh-water tortoises, snakes (mostly non-venomous), and frogs abound. There are many varieties of fresh-water fish and littoral Mollusca. Butterflies and beetles are strongly represented. The termite is a pest which is capable of serious damage to wooden buildings unless special preventive measures are taken. Mosquitoes and sandflies are very troublesome in the 'top end', particularly in the wet season. Buffaloes exist in large herds on the northern coastal plains. Most types of native fauna are protected.

The vegetation is north Australian in type, but a number of forms belong to the Malayan and Oceanic regions. The climate and generally poor soils associated with it give rise to tropical savannah vegetation, with the size and volume of woody material present being closely related to rainfall and the quality of the forests decreasing strikingly as one proceeds inland from the northern coastline. In the north, cypress pine (which is termite resistant), ironwood, bloodwood and paperbark timbers are cut and milled for local building purposes. Further inland, particularly on the Barkly Tableland and parts of the Victoria River district, there are better grazing grasses and some shrubs, while the wide belt of sandy plain between the Barkly Tableland and the ranges in the Alice Springs area carries mainly spinifex grass and low scrub. The plains of the Alice Springs district carry chiefly an acacia scrub known as mulga, spinifex and other sparse grasses. The principal families represented in the interior are *Gramineae, Chenopodiaceae, Compositae and Mimosaceae.*

Population

See also Chapter 6, Demography.

The population of the Northern Territory at the census of 30 June 1976, as adjusted for under-enumeration, was 101,400 persons (including Aboriginals, for whom separate details are not yet available).

Aboriginal Affairs

Policy

Policy statements in recent years have been moving away from specific definitions such as 'assimilation' to a more open-ended approach in which the underlying principle is now self-management and self-sufficiency incorporating Aboriginal involvement in all stages of the development and implementation of policy.

In general, the Government aim is to remove legal, social and economic discrimination against Aboriginals, and to provide opportunities to restore their lost power of self-determination in these areas.

Legal status

As Australian citizens, Aboriginals are entitled to equality before the law. For the purpose of administering various programs designed to benefit Aboriginals, the Department of Aboriginal Affairs and other Commonwealth Government departments and agencies define an 'Aboriginal' or 'Torres Strait Islander' as a person of Aboriginal or Islander descent who identifies as an Aboriginal or Islander and is accepted as such by the community with which he is associated.

Land and land rights

There are about 350 separate Aboriginal reserves in Australia comprising about 541,300 square kilometres, of which 244,000 are located in the Northern Territory.

Early in 1973, Mr Justice A. Woodward was appointed as sole Commissioner to enquire into Aboriginal land rights in the Northern Territory and to advise the Commonwealth Government. The final report of the Commission, issued in May 1974, recommended that land be vested in Aboriginal land trusts in fee simple, and made recommendations on a number of related matters. The *Aboriginal Land Rights (Northern Territory) Act*, proclaimed on Australia Day 1977, gave effect to these recommendations.

At present, royalties from mining on reserves are paid into the Aborigines Benefits Trust Fund, which was established in 1952. Loans or grants are made from the fund to any Aboriginal or group of Aboriginals in the Northern Territory on the advice of a special advisory committee which has an all-Aboriginal membership.

Moneys in the Fund are used for a wide variety of purposes which benefit the Aboriginal people. These arrangements will continue under the *Aboriginal Land Rights Act*, which reconstitutes the Fund and provides that 30 per cent of mining royalties will go to Aboriginal groups in areas affected by the particular mining operations.

The recommendation of the Fox Enquiry that Aboriginals obtain ownership of land in the Arnhem Land reserve has been accepted by the Government.

Aboriginal communities are also being assisted to purchase land off reserves, and a number of properties have been bought with Government assistance. An Aboriginal Land Fund was established in 1974 for this purpose.

Following the proclamation of the *Aboriginal Land Rights (Northern Territory) Act*, the Northern and Central Land Councils were formally established and Mr Justice Toohey was appointed as Aboriginal Land Commissioner. In 1977, the first hearing commenced on Aboriginal claims over land in the Borroloola area, and submissions were made for land claims in the Tanami Desert.

Community services and affairs

Government policy in the administration of Aboriginal affairs is to encourage existing State and Commonwealth departments and instrumentalities to provide services to Aboriginals as Australian citizens and to take special measures to ensure that these services are appropriate, accessible and reflect the variety of Aboriginal life styles. Responsibility for a variety of services in Aboriginal communities in the Northern Territory has been transferred from the Northern Territory Division of the Department to other appropriate authorities. The Departments of Education, Health, and Northern Territory have assumed full responsibility for education, health and social welfare services respectively in Aboriginal communities in the Northern Territory.

Special programs for Aboriginals

Attention is being given to changing the institutional character of Aboriginal reserve communities in the Northern Territory. Supervisory staff continue to be replaced by community development advisors, and managerial and technical staff are progressively being recruited by the communities themselves. Programs are designed to encourage and strengthen the capacity of Aboriginals to manage their own affairs, to increase their economic independence, and to reduce existing and other social handicaps facing them. The Government is also able to support and encourage Aboriginal initiative by responding directly to individual communities which wish to develop their own social or economic projects. Grants may be made to communities to enable them to improve community facilities and amenities, and to help them to establish economic enterprises.

Government policy is to provide Aboriginal primary school children in Aboriginal communities with education in their own language as far as practicable. Bilingual education programs initiated in Northern Territory Aboriginal communities in 1973 have been expanded and are now operating in nineteen schools. There are over 1,800 children receiving part of their instruction in their mother tongue.

Aboriginal Legal Services operated by Aboriginals and supported by the Department of Aboriginal Affairs have been established on the initiative of Aboriginal groups in all States and the Northern Territory to ensure that Aboriginals have access to legal advice and are competently represented in the courts.

Production

See also the chapters dealing with particular subjects.

Land tenure

On 30 June 1976, 74,000 hectares were held under freehold title; 80,570,800 hectares under leasehold; 2,350,600 hectares under various licences; 25,242,900 hectares were reserved for public purposes and for the benefit of Aborigines; and 26,381,700 hectares were unalienated. Land rent collected for the year 1976–77 amounted to $305,900.

The Commonwealth Government has for some time been conducting a comprehensive review of pre-existing policies affecting land tenures and the interests of Aborigines in land holding. An enquiry into Aboriginal land rights was held by Mr Justice Woodward, who made a report to the Commonwealth Government in April 1974. *See* Land and land rights.

A Commission of Inquiry into Urban Land Tenures was also established, under the chairmanship of Mr Justice Else-Mitchell. Various government departments studied the Commission's first report, made in November 1973, and further submissions were made to the Commission. A second and final report was presented to Commonwealth Parliament in 1976.

The various forms of lease or licence of lands are as follows:

Pastoral leases —granted for periods not exceeding 50 years.
Agricultural leases —granted in perpetuity over areas generally limited to a maximum of 40,470 hectares approximately.
Leases of town lands —granted in perpetuity.
Special purposes leases—granted for a term of years or in perpetuity for purposes other than pastoral, agricultural or mining, or for private residential purposes within a town.
Church lands leases —granted for church purposes at a nominal rent in perpetuity.
Miscellaneous leases —granted for any prescribed or approved purpose for a term of years or in perpetuity.

Grazing licences —granted to graze stock on Crown Lands for periods not exceeding one year.

Occupation licences —granted for manufacturing, industrial or any prescribed purposes for periods not exceeding five years.

Miscellaneous licences —granted for periods not exceeding one year.

With the exception of leases within the Darwin Town Area or a municipality—which are granted at nominal rentals (10 cents per annum if and when demanded), the foregoing leases and licences are granted at specified rentals, or at rentals fixed by the Administrator and subject to reappraisement, and under various prescribed or specified conditions.

Pastoral and agricultural industries

Beef cattle production is the major rural industry in the Northern Territory. The beef industry has been characterised throughout its history by a slow rate of expansion due to the poor quality of native pastures and unsatisfactory market outlets. Developments in pasture improvement and the use of adapted Zebu cross-cattle in the northern areas, the opening in 1963 of the export abattoirs in Katherine and Darwin, better disease control coupled with better management techniques, and various incentives and research programs introduced by the Government to encourage developments of the pastoral industry have resulted in an increase in turnoff figures and value of production during the late 1960's and early 1970's.

In the last 3 years, markets for beef have been poor with prices lower than in previous years. Coupled with this, the closure of the Darwin abattoirs has caused a downturn in the beef industry in the Northern Territory. Northern Territory cattle have also been affected by restricted overseas markets. Consequently, the value of production and the numbers of cattle turned-off have fallen. This reduction of the market and favourable seasonal factors have resulted in a marked increase in the cattle population. However, during the last year there has been some improvement both in the cattle turn-off rate, particularly for live export, and in economic returns.

The value and volume of agricultural production continues to fluctuate with successive attempts and failures at large scale 'corporation' farming. Grain sorghum is well established as the major crop, with rice, legume grains and pasture seeds also being produced. The hay industry has undergone expansion in recent years in response to the demands of the live cattle export trade. Following Cyclone Tracy there has been noticeable growth in the horticultural industry, with attempted diversification of production, and marked growth in the nursery industry. However, infrastructure and marketing problems still impede the development of most agricultural industries. Approximately 120,000 hectares of improved pastures have been sown for more intensive beef production, although new sowings have decreased in recent years in respone to difficulties in the beef industry.

Animal production has continued to be augmented by the buffalo meat industry. Interest in domestication has been developed on the sub-coastal plains properties and will need to continue if this industry is to be further advanced. Both the pig and poultry industries, unaffected by overseas marketing, have continued to expand.

Continuing private investment in rural development is leading to greater pressures upon the Government for extension services and research. The work of C.S.I.R.O. and the Department of the Northern Territory research stations and experimental farms is providing the basis for continuing rural development. As new knowledge is being gathered it will be followed by testing on farm scale. The research institutions in existence in the Northern Territory are as follows:

Arid Zone Research Institute—Alice Springs. With the completion of the new research laboratory in 1967, more emphasis is being placed on arid zone research in the 'Centre' and on the need to conserve valuable pastoral lands while achieving maximum productivity. Fields of work at the Institute include animal health, agriculture, soil conservation, botany, animal production and range management.

Coastal Plains Research Station. The station has 3 main roles: one as a regional station examining suitable pasture and animal production systems in the Coastal Plains/Darwin area; second involving basic studies into breeding and breeds with wider implications; and a third as the major centre for rice research. Its efforts have been devoted to the animal breeding investigations, with some attention being paid to the development of improved pasture systems including establishment, maintenance and the reaction to various grazing rates. Breeding trials are being conducted with Brahmans and Africander cross-breds, and Shorthorns. Banteng (Bali) cattle are being studied as a source of tropical blood for breeding cattle adaptable to Territory conditions, and a small herd of cross-bred cattle has now been developed. Buffalo/Brahman comparison studies are also being undertaken.

Victoria River Experiment Station. This is the only Government Experiment Station in the rangelands of the Northern Territory. Work is being undertaken on: genetic improvement of the local breed of Shorthorn cattle; evaluation of improved pastures; supplements; breed comparisons; and range management studies.

Upper-Adelaide River Experiment Station. The station is mainly concerned with regional investigations of pasture and animal production for the Marrakai area including stocking rates on improved and native pastures, comparison studies of improved pastures and testing of new potential pastures, management of pastures on flood plains, feeding supplementation trials and rice production.

Berrimah Experiment Farm. The work of this farm has been mainly restricted to pasture and crop investigations; plant introduction; fruit, vegetable and weed control trials; and intensive animal studies.

Katherine Experiment Farm. This farm services the southern part of the Daly River Basin and has a larger component of cropping work than other stations. Work being conducted includes utilisation and management of improved pastures; sorghum, peanut, guar, cowpea and bulrush millet trials; and various aspects of cattle management.

Douglas-Daly Experiment Station. This station is concerned with developing animal production systems for the higher rainfall part of the Daly River Basin, including evaluation of pastures under grazing/stocking rates, supplementary feeding, use of fertilisers, pasture establishment, and pasture animal production trials.

Other research sites. Research and trials are also being conducted at selected sites on maize, soy-beans, sorghum, peanuts, *Stylosanthes spp.* and weed control.

NORTHERN TERRITORY: AREA AND PRODUCTION OF CROPS

Crop		*1972–73*	*1973–74*	*1974–75*	*1975–76*	*1976–77*
		AREA (hectares)				
Fruit—Bananas		21	20	11	19	12
Pineapples		6	8	(*a*)	. .	(*a*)
Other		43	34	21	43	33
Total fruit		*70*	*62*	*32*	*62*	*45*
Peanuts		13	23	(*a*)	19	(*a*)
Sorghum for grain		11,032	3,990	4,235	3,380	865
Vegetables for human consumption		170	182	131	143	98
Other crops(*b*)		823	721	3,620	4,689	1,367
Grand total		**12,108**	**4,978**	**8,018**	**8,293**	**2,375**
		PRODUCTION				
Fruit—Bananas	tonnes	242	274	138	121	70
Pineapples	,,	16	21	3	. .	(*b*)
Peanuts	,,	. .	3	. .	30	. .
Sorghum (grain)	,,	17,041	6,674	6,784	4,986	1,335

(*a*) Not available for publication, included in Other crops. (*b*) Principally fodder crops.

NORTHERN TERRITORY: LIVESTOCK
('000)

31 March—	*Horses*	*Cattle*	*Sheep*	*Pigs*	*Domesticated buffaloes*
1973	(*a*)	1,237	3	7	5
1974	(*a*)	1,321	1	8	4
1975	(*a*)	1,434	1	7	3
1976	28	1,603	1	7	3
1977	31	1,672	1	7	4

(*a*) Not collected.

Mining

During 1976–77 the mining industry continued to be the major contributor to the income of the Northern Territory. Mineral output was valued at $139 million in 1974–75, at $137 million in 1975–76 and at $217 million in 1976–77. Much of the increased value in 1976–77 reflects higher prices of manganese, bauxite and alumina.

The main minerals produced during 1976–77 were bauxite (including the production of alumina) on the Gove Peninsula, manganese from Groote Eylandt and gold, copper and bismuth from Tennant Creek. Most of the Northern Territory ore production is exported to Japan. European Countries and the U.S.A. are the other major purchasers of minerals.

At the Gove mining and treatment plant, Nabalco Pty Ltd. produced bauxite, including alumina, to the value of $101 million in 1976–77. Of the 4.75 million tonnes of bauxite produced, 2.56 million tonnes or 54 per cent was fed to the alumina plant. Bauxite exports totalled 1.71 million tonnes with Japan purchasing 1.11 million tonnes (65 per cent).

The production of manganese from the extensive deposits at Groote Eylandt supplies all Australia's requirements of metallurgical grade managanese ore. Approximately 40 per cent of the manganese produced during 1976–77 was exported to Japan, with smaller amounts being exported to Europe, the U.S.A. and other countries. Total shipments from Groote Eylandt amounted to 981,017 tonnes of lump ore and 593,150 tonnes of fines.

The value of gold production in 1976–77 was $16.5 million, nearly all produced in the Tennant Creek area. The underground Warrego mine of Peko Mines Ltd. yielded almost 75 per cent of the total gold production, with bismuth and copper as by-products. The other major producer of gold is the open cut Noble's Nob mine of Australian Development Ltd. Due to the unfavourable world price of copper, only those mines producing ores with a high gold content are now viable, and the flash smelter installed in 1973 to produce blister copper has been shut down since February 1975.

Reserves of the four major uranium deposits (Ranger, Nabarlek, Jabiluka and Koongarra), discovered in the Alligator Rivers area some 1,240 kilometres east of Darwin, exceed 300,000 tonnes of uranium oxide, i.e. about 20 per cent of the known world reserves. The Government has decided that the mining and export of uranium should proceed and has approved an environmental impact assessment of the Ranger Project. The other deposits are still subject to environmental inquiries.

In the McArthur River District a pilot plant has been established to develop an economic ore treatment method for the extensive, medium-grade, but extremely finely-disseminated, lead-zinc sulphide deposits, which pose a major concentrating problem.

NORTHERN TERRITORY: MINING ESTABLISHMENTS

		1973–74	*1974–75*	*1975–76*
Establishments operating end of June	No.	15	15	13
Persons employed(*a*)	No.	1,495	1,180	1,221
Wages and salaries	$m	12.9	15.9	14.8
Turnover	$m	87.7	91.6	90.2
Opening stocks at 30 June	$m	7.8	12.5	19.8
Closing stocks at 30 June	$m	12.4	17.5	18.3
Purchases, transfers in and selected expenses	$m	22.0	27.4	32.0
Value added(*b*)	$m	70.2	69.2	56.7
Fixed capital expenditure(*c*)	$m	6.2	14.7	13.6

(*a*) At end of June. Includes working proprietors. (*b*) Turnover plus increase (or less decrease) in the value of stocks less purchases, transfers in and selected expenses. (*c*) Outlay on fixed tangible assets less disposals.

Petroleum and natural gas

Off-shore operations represented the main activity in petroleum exploration during 1976–77. At 30 June 1977 there were four on-shore oil permits covering 76,500 square kilometres and nine off-shore permits covering 689 blocks. Three oil leases covering 2,340 square kilometres are under application.

No wells were drilled during 1976–77, but two off-shore seismic surveys were completed.

Forestry

Forestry activities in the Northern Territory commenced in 1959 when the Forestry and Timber Bureau established a northern regional station in Darwin. In the same year the Legislative Council of the Northern Territory passed a Forestry Ordinance to regulate the harvesting of forest produce and the management of forests. Activities during the first ten years were largely devoted to assessing the native forest resource, establishing species trials to determine what species were suitable for plantation establishment and examining the silviculture of native forests. Some forest development work was carried out under the terms of two Cabinet approvals. This work mainly took place within Aboriginal reserves in order to provide employment for Aboriginals and included plantation establishment, the protection of native forests from fire to encourage regeneration and the training of Aboriginals in sawmilling.

In 1970 a new five year forest development program was commenced which expanded forestry activities both within Aboriginal reserves and in forest reserves and potential forest reserves. It has been estimated that 75 per cent of the potentially productive forest land in the Northern Territory occurs within Aboriginal reserves.

The program provides for the extension of fire protection and forest management activities within cypress pine and other native forest in Arnhem Land and on Melville Island. A major objective of the program is to provide fire protection and forest management to 130,000 hectares of mixed cypress pine forest within Arnhem Land. The program also provides for the setting aside of forest areas to be managed for multiple use purposes including timber production, recreation and the protection of soil and water sheds. The annual establishment of 400 hectares of coniferous plantation is included in the present program. Forest assessment activities are to be continued and fire control activities are to be expanded within forestry, pastoral and agricultural areas. In addition, tree planting activities are to be expanded for conservation purposes in the arid zone. A new program is currently being prepared.

The consumption of sawn timber in the Northern Territory during 1975–76 was estimated at 12,000 cubic metres. It is not possible to obtain accurate statistics because of the substantial, but unknown, quantity of sawn timber which enters the Northern Territory by road. Local production during 1975–76 was 454 cubic metres.

The tropical *Eucalyptus* forests in the Northern Territory are comparatively low in timber productivity per unit area. Forest policy within the Northern Territory provides for multiple use management where feasible in order to optimise other forest values including soil and water conservation, forest recreation, grazing and the conservation of flora and fauna. The financial yields from forest areas can be increased through this form of management.

Fishing

Following preliminary surveys which indicated the existence of valuable prawn resources off the Northern Territory coast, prawning operations were approved in 1968 in waters adjacent to the Territory. Two prawning companies are now operating, one of which is a joint Australian-Japanese venture. One prawn processing plant is in operation in Darwin and another operates on Groote Eylandt. Boats and equipment valued at $42 million were based in the Northern Territory in 1975–76. During 1975–76, 3.2m kilograms live weight of prawns were caught by Northern Territory prawning ventures. The Territory exported 0.6m kilograms (processed weight) valued at $4.3 million. The other main fishery in the Territory is that based on barramundi in estuaries and inshore areas. This species also provides good sport fishing in inland areas. Commercial catches of barramundi totalled 606,000 kilograms (filleted weight) for 1975–76.

NORTHERN TERRITORY: PRINCIPAL FISHERIES

		1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
Prawns—						
Estimated gross weight of prawn catch	tonnes	2,629	2,584	3,998	2,060	3,191
Gross value of prawns	$'000	2,562	4,005	5,791	3,080	4,222
Fish—						
Estimated live weight of fish catch	tonnes	391	619	846	781	978
Gross value of fish	$'000	191	380	749	613	929
All fisheries—						
Number of boats engaged		130	163	276	194	289
Number of men employed		532	561	788	638	830

Secondary Industries

The types of secondary industries that have developed in the Northern Territory have been largely service industries based on demand for local markets, together with the processing of primary production for export including the processing of mined ores, prawns and beef. The isolation of the Northern Territory from the major population areas of Australia and the resultant high transportation costs make other than local market expansion difficult. However such isolation also provides a protected market for some aspects of secondary industry.

The extent of importation of commodities into the Northern Territory, significant underdeveloped raw resources and a growing population (and hence market) would suggest that potential exists for industrial expansion. Some see the proximity of South East Asian markets to Darwin as providing considerable future potential for export-orientated secondary industry development.

In recent years, the effects of Cyclone Tracy on the City of Darwin, the general downturn in economic activity in the Australian economy, and the beef industry slump have had a significant effect on secondary industry in the Northern Territory. Some rapid growth in secondary industry associated with the building industry in Darwin has occurred, but growth in other areas is largely dependent on improvement in the general economic climate.

The following table shows results of the Manufacturing Censuses taken in respect of the years 1973–74 and 1974–75.

NORTHERN TERRITORY: MANUFACTURING ESTABLISHMENTS

		1973–74	*1974–75(a)*
Establishments at 30 June	No.	102	67
Persons employed(*b*)	No.	2,450	2,305
Wages and salaries	$m	18.0	22.0
Turnover	$m	87.0	94.7
Opening stocks at 30 June	$m	16.6	17.6
Closing stocks 30 June	$m	26.0	34.1
Purchases, transfers in and selected expenses	$m	45.8	61.4
Value added(*c*)	$m	50.6	47.8

(*a*) From 1974–75 all manufacturing establishments owned by multi-establishment enterprises and single establishment manufacturing enterprises with four or more persons employed. (*b*) Average over whole year. Includes working proprietors. (*c*) Sales, transfers out and other operating revenue plus increase (or less decrease) in the value of stocks, less purchases, transfers in and selected expenses.

Tourism

Tourism has become one of the Territory's major industries in recent years and is likely to play an increasingly important role in the Territory's economy. Prior to Cyclone Tracy the industry had sustained growth rates of the order of 12 per cent per annum. In 1971, visitors numbered 112,800, with 12,000 of these coming from overseas. Ayers Rock provides the most reliable long-term visitor figures which show that from a visitor total of 5,000 in 1961, numbers had increased to 38,000 in 1971 and to 62,646 in 1976. Despite the setback suffered by the Top End as a result of Cyclone Tracy, the industry there already shows signs of resurgence, while the Centre has experienced continued growth.

For 1977–78 the Northern Territory Tourist Board has been allocated $713,000 for development of the industry. Bureaux are currently in operation in Sydney, Melbourne and Adelaide, and the Territory operations are controlled by two regional managers working from Bureau offices in Darwin and Alice Springs.

National Parks and Reserves

About 43,000 square kilometres have been set aside as wildlife sanctuaries under the *Wildlife Conservation and Control Ordinance*. They are controlled by the Chief Inspector of Wildlife, who is an officer of the Northern Territory Public Service. Wildlife protected areas total 236,000 square kilometres, the bulk of which consists of Aboriginal reserves.

The Northern Territory Reserves Board administers some 42 national parks and reserves covering an area of 125,060 hectares. The Board is responsible under the *National Parks and Gardens Ordinance* for the care, control and management of these reserves, and its functions include the preservation and protection of natural and historical features and the encouragement of public use and enjoyment of land set aside in such reserves.

Trade, transport and communication

Trade

No comprehensive record is kept of the trade between the States and the Northern Territory. The following table shows the values of the principal commodities imported into and exported from the Northern Territory from or to overseas countries.

NORTHERN TERRITORY: PRINCIPAL OVERSEAS IMPORTS AND EXPORTS
($'000)

Commodity	*1972–73*	*1973–74*	*1974–75*	*1975–76*	*1976–77(a)*
IMPORTS					
Automotive spirit	1,399	192	3,801	4,786	7,566
Automotive distillate	1,185	1,507	3,772	3,780	6,054
Furnace fuel	2,233	8,505	13,407	19,332	13,502
Chemical elements and compounds	3,282	2,144	7,760	6,834	5,463
Timber	771	1,235	1,754	1,887	2,573
Machinery and transport equipment(*b*)	32,827	17,579	7,332	7,314	16,112
Other articles	7,893	7,270	11,069	15,226	21,071
Total imports	**49,590**	**38,432**	**48,895**	**59,159**	**72,341**
EXPORTS(*c*)					
Meats and meat preparations	7,375	6,047	2,698	2,076	1,771
Fresh prawns and shrimps	4,479	4,162	3,140	3,005	4,291
Iron ore and concentrates	5,656	4,939	1,549	606	. .
Other metalliferous ores and metal scrap	22,918	27,149	37,379	53,825	69,549
Inorganic chemicals elements metallic oxides, etc.	22,258	35,775	56,786	83,374	87,808
Ships, boats and floating structures	14,881	3,185	11,519	322	950
Other articles	18,131	5,525	3,993	8,643	5,364
Total exports	**95,698**	**86,782**	**117,064**	**151,851**	**169,733**

(*a*) Import figures from 1976-77 are not comparable with previous years because of the change in the basis of valuation (see page 646). (*b*) Includes value of oil search equipment (floating structures, etc.) which were brought to the Northern Territory for temporary operation and moved overseas after the planned exploration activities were completed. (*c*) Includes domestic exports and re-exports.

Railways

The Australian National Railways operates the Central Australia Railway from Port Augusta in South Australia to Alice Springs over a distance of 1,226 kilometres, of which about 322 kilometres are in the Northern Territory. The line is standard gauge from Port Augusta to Marree, a distance of 357 kilometres, and narrow gauge (1,067 mm) from Marree to Alice Springs. The Commonwealth Government has approved the construction of a standard gauge line between Tarcoola and Alice Springs to replace the Marree–Alice Springs section of the Central Australian Railway; survey work has commenced. The train service on the North Australia Railway which operated from Darwin to Birdum ceased on 30 June 1976 by direction of the Commonwealth Government.

Roads

The Stuart Highway is the principal north-south axis route for the Northern Territory connecting Alice Springs, Katherine, Tennant Creek and Darwin to Adelaide. The section Darwin–Alice Springs is 1,535 kilometres long and sealed over its full length. The section south of Alice Springs is sealed to the South Australian border, a distance of 307 kilometres.

The Barkly Highway is the principal route to and from Queensland via Mount Isa. It is 648 kilometres long and is sealed. Running approximately east–west, it connects to the Stuart Highway some 26 kilometres north of Tennant Creek.

The Victoria Highway, the principal access route to and from Western Australia via Kununurra, is 467 kilometres long and is sealed.

These highways are used to carry a variety of freight, including cattle, particularly between the railheads of Mount Isa and Alice Springs. They provide access to meatworks at Wyndham (Western Australia), Cloncurry (Queensland) and Katherine. In addition, they play a particularly important part in the Northern Territory economy through their association with the tourist industry.

The first of a number of programs for upgrading the Stuart and Barkly Highways is complete, and work is presently being carried out on the second program.

The fourth principal Northern Territory road is the Arnhem Highway which has been sealed for 210 kilometres. It commences some 34 kilometres south of Darwin at the Stuart Highway and leads eastwards to the uranium exploration and development areas of the Alligator Rivers district.

Development roads serving the more remote outback communities have received attention. At 30 June 1976 there were 20,285 kilometres of roads in the Northern Territory. These comprise 4,652 kilometres sealed, 1,597 kilometres gravel, 4,942 kilometres formed and 9,094 kilometres unformed.

Shipping

Shipping services to Darwin are provided from the eastern states by the Australian National Line using one vessel on a six weekly service, and from Western Australia by West Australian State Shipping Service using three vessels providing three services a month. Tankers from Australian and overseas ports deliver oil products to Darwin. General cargo vessels from overseas ports also visit Darwin. The prawning and fishing industry accounts for a significant portion of the shipping entries into the port.

John Burke Pty Ltd operates a regular shipping service from Brisbane to the Gulf of Carpentaria ports which serves Aboriginal communities as well as the mining centres of Melville Bay (Gove) and Milner Bay (Groote Eylandt). Other shipping services to Milner Bay and Melville Bay bring supplies for the mining operation, and bulk carriers load ore and other mining products for delivery to ports in Australia and overseas.

Powered barges provide services from Darwin to Aboriginal communities and ports along the coast.

Air services

At 1 January 1977, there were 127 aerodromes in the Territory, six of which are maintained by the Australian Department of Transport, Air Transport Group. Overseas passenger flights ceased following the destruction by Cyclone Tracy of the facilities for international passengers in the Darwin terminal building, but they have now resumed. The Merpati Nusantara service (Darwin to Kupang) resumed during 1975, and on 31 March 1976 Qantas re-introduced a service to Hong Kong and London. In addition, on 3 October 1977, Cathay Pacific commenced a weekly north-bound service via Darwin to Hong Kong. Regular internal services to Darwin with, in some cases, intermediate stops at Territory centres are operated by Trans-Australia Airlines and Ansett Airlines (from Adelaide, Sydney, Melbourne and Brisbane), and MacRobertson-Miller Airways Ltd (from Perth). Connair Pty Ltd, based at Alice Springs, operate a network of air services throughout the Territory, and MacRobertson-Miller Airways Ltd operate from Darwin to Gove and Alice Springs. The Northern Territory Aerial Medical Service has aircraft based at Darwin, Gove and Alice Springs, while the Royal Flying Doctor Service operates from Alice Springs. Charter services are available at a number of centres including Darwin, Alice Springs, Katherine, Tennant Creek, Gove and Groote Eylandt.

Posts, telegraph, telephone, radio and television

Postal communication is maintained by road, rail and air transport between major and Northern Territory towns and the capital cities of Australia. Large centres receive surface mails by two major road mail services operating via Alice Springs and Mount Isa. The more remote centres are served by the aerial services. Direct mails are despatched to several overseas countries, but direct despatches are received only from London, Bangkok and Djakarta.

Trunk telephone links to Darwin extend from Townsville via a broadband microwave radio relay system, and from Adelaide via carrier systems superimposed on the overland telegraph lines. These systems also carry telegram and telex traffic and serve towns along the routes. Subscriber trunk dialling facilities were introduced to Darwin and Nhulunbuy (Gove Peninsula) in 1974 and to Katherine in 1975. ISD (International Subscriber Dialling) was introduced to telephone exchanges in the Darwin area and to Katherine and Nhulunbuy in December 1976.

High frequency radio telephone exchanges at Katherine and Alice Springs provide connections to the telephone network for some of the remote properties in the Northern Territory. The majority of homesteads on pastoral leases are equipped with radio transceivers operating through the Royal Flying Doctor base at Alice Springs or the Telecom Australia Outpost Radio base in Darwin which provide a message passing and emergency communications service.

Regional national broadcasting stations are situated at Darwin, Alice Springs, Tennant Creek, Katherine and Gove and there are commercial broadcasting stations located at Darwin and Alice Springs. Two television stations, ABD Channel 6 of the national broadcasting system and NTD Channel 8, a commercial station, operate in Darwin. The Darwin ABD 6 national program is also broadcast in Katherine (ABKN 7) and Tennant Creek (ABTD 9) with a translator (ABTD 9–10) to give coverage of the mining residential area at Warrigo. A national television station, ABAD Channel 7, operates in Alice Springs.

Education

See also Chapter 12, Education.

The Commonwealth Department of Education, through its Northern Territory Division, is responsible for the administration of education in the Northern Territory.

This responsibility includes the following:

(i) Development of curricula for use in all Northern Territory schools; education research; in-service and pre-service education of teachers; development of a teaching resources centre.
(ii) Special projects covering the range of educational facilities in the Northern Territory, including education programs for Aborigines, migrant education and services for handicapped children
(iii) Planning and controlling the capital works program of educational buildings in the Northern Territory.
(iv) Administration of capital assistance to non-government schools.
(v) Training of Aboriginal teaching assistants.

Much of this is carried out at a local level by staff of regional offices in Alice Springs, Tennant Creek and Katherine.

Schools in the Northern Territory

At August 1976 there were 107 schools in the Northern Territory catering for approximately 24,800 students. About 3,000 of these students attended private or mission schools.

Professional staff are recruited by the Commonwealth Teaching Service from centres all over Australia according to the requirements of the Northern Territory Division. There are no training institutions which provide teachers specifically for the Northern Territory, but many colleges incorporate studies which are based on specific needs of the Northern Territory Division.

Prior to 1974, the urban schools' curricula were based on South Australian syllabi. This situation is being phased out, although students still sit for matriculation with the South Australian Public Examination Board. In addition to South Australian courses, Northern Territory schools are encouraged to develop their own curriculum based on local needs. Curriculum advisers are available to give assistance, and a Registration Committee has been formed to assess courses. An alternate Year 12 is also available for those students not wishing to qualify for tertiary entrance.

There are various types of primary schools in urban areas, and these provide a variety of learning environments. Open plan buildings are popular, and flexible space designs reflect the desirability of alternative approaches to teaching techniques with a multi-cultural and heterogeneous student population.

In smaller urban communities, area schools are yielding to population growth and new high schools and primary schools are being provided.

There are two Schools of the Air in the Northern Territory: one at Katherine and one at Alice Springs. These schools moved to new buildings at the beginning of 1977 and plans are in progress to include a residential wing in each school to allow students from remote areas to attend their school for one week each term. Schools of the Air have developed individual programs and provide correspondence and radio lessons for their students. Aerial and road patrols are carried out regularly to provide teacher/student and parent contact.

Special schools are located in Alice Springs and Darwin for handicapped children. However, where possible, students with special needs are integrated into primary and secondary schools.

A continuing development has been the interest in Indonesian and South East Asian studies in secondary schools. Student and teacher exchange schemes are continuing to operate between high schools in Bali and the Northern Territory.

Aboriginal education

The great majority of Northern Territory Aboriginals live away from the town centres. Education for Aboriginal children is provided in various settings, including mission schools, Government schools on or near missions, Government schools in or near Aboriginal townships, in schools on pastoral properties and on outstation or homeland centres.

There has been an increasing number of requests from outstation communities for the Education Department to provide educational assistance. This has provided an educational challenge unlike that anywhere else in Australia. A small group of teachers is currently working in this field and is developing special 'distance teaching' methods to help overcome the difficulties faced by isolated outstation groups in their quest for education.

The Government schools for Aboriginal children in out-of-town centres provide tuition at pre-school and primary school level; a number of them have some post-primary classes as well.

For Aboriginal children who wish to proceed to secondary school, there are three residential, transitional colleges: Yirara, Kormilda and Dhupuma. These colleges are regionally based, but situated near urban centres. They provide students from bush locations with the opportunity to become bicultural, and prepare them for entry to secondary school programs in towns.

Bilingual education programs in Northern Territory schools in Aboriginal communities have attracted wide interest from within Australia and overseas. There are nineteen schools offering bilingual programs, and many others include Aboriginal language and culture in the curriculum. Thirteen languages are now being used in the program, and in most of the schools children are acquiring initial literacy skills in their own language. Although the major proportion of the curriculum is devoted to instruction in an Aboriginal language, a structured English course forms an integral part of the bilingual program. Experience has shown that Aboriginal children achieving functional literacy in their own language have been able to transfer these skills to English with little difficulty.

The School of Australian Linguistics, which is training Aboriginals as linguists, the Summer Institute of Linguistics, and many mission linguists work closely with officers of the Northern Territory Division of the Department of Education in the development of the Bilingual Education Program.

Adult education is provided in Aboriginal townships and on missions. Most adult education activity takes the form of classes conducted by local instructors. Classes include song and dance, folklore, art and craft, English, civics, basic mathematics, hairdressing, mechanics, dressmaking, domestic science, health and nutrition, budgeting and manual arts. The Department of Education has developed a variety of short term courses to assist Aboriginal people to overcome problems of social concern, including elections and voting procedures. Intensive courses are conducted in major centres with visiting instructors, but Aboriginals also conduct courses.

Darwin Community College

The Darwin Community College is presently the only institution which provides post-secondary education in the Northern Territory. The College was opened in 1974 and is an autonomous, multi-purpose institution. It has schools of business and management, general studies (including teacher education), creative and applied arts, technology and science, trades and linguistics. As well as courses leading to awards, the College provides a wide range of non-award, general interest classes. It provides tutorial assistance in a limited range of subjects to external students enrolled at the University of Queensland. The College has established a regional campus at Alice Springs and has annexes at Katherine, Nhulunbuy and Tennant Creek. The School of Australian Linguistics is established at Batchelor. During first semester 1977, the Darwin Community College recorded 5,464 course enrolments, the highest number in its brief history.

Though the Darwin Community College's role is primarily to cater for the Northern Territory's needs, it does have a national significance in that it is the first multi-level institution of its kind in Australia. Because of its unique educational nature it is constantly attracting visitors from interstate educational institutions and from overseas.

Apprenticeship training

Since March 1974, the formal training of apprentices in the Northern Territory has been co-ordinated through the Darwin Community College. Courses are conducted for the majority of trades at the Casuarina and Alice Springs campuses.

Finance

Details of receipts and outlay of the Northern Territory for the years 1971–72 to 1975–76 are shown in the following table. In this table, identifiable receipts and outlay of the Northern Territory have been classified into a National Accounts form. The table covers transactions relating to the Northern Territory in the Commonwealth Government Consolidated Revenue Fund and the following trust funds: Aborigines Benefits, Northern Territory Government Settlements Canteens, Northern Territory Housing Loans, Northern Territory Transport, and Northern Territory expenditure from the Aboriginal Advancement Trust Account. Details of the financial transactions of the following

Northern Territory semi-government authorities are also included: the Northern Territory Port Authority and the Northern Territory Housing Commission. Details of the financial transactions of the Darwin City Council are also incorporated in the table. Not included is revenue derived by the Commonwealth Government from income taxes, customs duties, etc. levied in the Northern Territory; expenditure by the Commonwealth Government in the Northern Territory on such items as defence, civil aviation, railways, etc.; payments to residents from the National Welfare Fund; and advances from the Aboriginal Loans Commission.

NORTHERN TERRITORY: RECEIPTS AND OUTLAY
($'000)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76p*
			RECEIPTS		
Taxation—					
Rates on land	1,041	1,100	1,227	1,647	1,928
Vehicle registration fees	784	815	859	831	1,043
Liquor taxes(*a*)	443	486	589	568	991
Payroll tax	1,900	1,950	2,800	5,300	6,550
Stamp duties	158	184	330	259	326
Other taxes, fees, fines, etc.	697	731	978	885	1,315
Interest, rent, etc.	1,488	1,542	2,086	1,840	1,905
Public enterprises income	3,927	3,752	2,857	−6,968	−10,091
Net sale of local authority and public corporation securities	289	157	149	193	314
Other receipts(*b*)	62	1,029	959	−3,798	3,758
Net charge to Commonwealth budget	109,636	122,438	155,676	284,183	404,783
Total receipts	**120,425**	**134,184**	**168,510**	**284,940**	**412,822**
			OUTLAY		
Final consumption expenditure—					
Law, order and public safety	3,607	5,439	7,411	12,540	14,307
Education	9,490	12,818	19,421	31,037	39,848
Health	12,069	14,673	19,883	27,736	32,691
Social security and welfare	8,479	10,569	11,463	20,228	19,492
Other	17,122	18,911	22,344	74,415	46,282
Expenditure on new fixed assets and stocks—					
Education	7,672	12,036	9,005	12,234	27,745
Health	9,457	5,275	8,991	14,566	28,856
Social security and welfare	348	622	220	500	473
Housing and community amenities	15,321	16,212	13,666	22,700	91,209
Roads	11,635	14,627	14,778	16,455	20,314
Electricity, gas and water	8,960	8,032	9,192	11,692	16,503
Other	9,145	8,895	9,349	20,009	26,241
Net purchase of existing assets	280	1	3,730	9,041	1,770
Interest paid	284	288	189	242	337
Cash benefits	201	257	64	1,754	2,997
Subsidies	620	506	657	237	106
Net advances to the private sector—					
Housing and community amenities	3,749	1,164	8,250	−15,920	11,601
Other	83	68	2	1,652	712
Net advances to public financial enterprises	. .	. .	. .	2,750	550
Grants for private capital purposes	1,903	3,791	9,895	21,072	30,788
Total outlay	**120,425**	**134,184**	**168,510**	**284,940**	**412,822**

(*a*) Estimated for years prior to 1972–73. (*b*) Includes movements in cash, investments, etc.

THE AUSTRALIAN CAPITAL TERRITORY

General description

The Constitution provides that the Seat of Government of the Commonwealth of Australia shall be in the State of New South Wales but distant not less than 100 miles (160 kilometres) from Sydney. After a number of alternative sites were considered, an area of 2,359 square kilometres lying approximately 320 kilometres south-west of Sydney was transferred to the Commonwealth as from 1 January 1911. A further 73 square kilometres at Jervis Bay were transferred as from 4 September 1915 to serve as a port for the Territory.

The primary responsibility for administering the Australian Capital Territory lies with the Department of the Capital Territory, whose functions include housing, public transport, police and municipal services. Education, public health, justice, and the provision of basic physical services including water supply, sewerage and roads are the responsibilities of the Departments of Education, Health, Attorney-General's, and Construction. The National Capital Development Commission has the responsibility for the planning and development of the Canberra city area.

During 1974 the A.C.T. Advisory Council, which had been in existence since 1930, was replaced by the A.C.T. Legislative Assembly. The first Assembly was elected on 28 September 1974 and held its first meeting on 28 October 1974.

The Assembly is constituted under the *Legislative Assembly Ordinance* 1936, Section 10 of which defines its role as follows:

'The Assembly may advise the Minister (for the Capital Territory) in relation to any matter affecting the Territory including the making of new Ordinances or the repeal or amendment of existing Ordinances.'.

Although the Assembly's present role is simply an advisory one, the fact of its establishment has been seen by some as evidence of a move towards self-government for the Territory.

The Assembly consists of 18 Members (9 from each of the electoral divisions of Canberra and Fraser) and its procedure is modelled on that of the House of Representatives. Its Members serve on a part-time basis and sittings usually take place on two evenings each fortnight. During 1975 the Assembly held 24 sittings, comprising 33 sitting days.

The Assembly normally considers (and sometimes introduces) Ordinances which are proposed for the Territory. It also passes resolutions on matters affecting the Territory. It is represented on a number of boards, authorities and committees such as the Canberra Commercial Development Authority, the A.C.T. Electricity Authority, the Interim Schools Authority, the Capital Territory Health Commission, the Liquor Licensing Board and the Australian Constitutional Convention.

At the census of 30 June 1976 the population of the Australian Capital Territory was 197,578. *See also* Chapter 6, Demography.

National Capital Development Commission

The *National Capital Development Commission Act* 1957 provides for a Commission to undertake and carry out the planning, development and construction of the City of Canberra as the National Capital of the Commonwealth. The year 1976–77 was the twentieth year of the Commission's operations. Construction work was carried out by means of agency operations with the Department of Construction and by private consultants. Expenditure in recent years is as follows: 1972–73, $74.4 million; 1973–74, $99.7 million; 1974–75, $147.5 million; 1975–76, $188.5 million. Total expenditure in 1976–77 was $204.1 million comprising: land development and services $31.2 million; water, sewerage and stormwater services and headworks $47.2 million; housing, flats and other accommodation $22.2 million; educational facilities $26.4 million; roads, bridges and traffic control $9.3 million; city works and associated facilities $2.4 million; Commonwealth Government offices $32.7 million; national works $12.1 million; others $20.6 million.

Works and services

Housing

Until the period following the 1939–45 War, most houses and flats in the Australian Capital Territory were built and rented by the then Department of the Interior. More recently, an increasing number of houses and flats have been built by private enterprise and, as a result, the proportion of houses and flats in the Australian Capital Territory occupied by tenants of the Department of the Capital Territory (formerly the Department of the Interior) has fallen from 79.7 per cent of total occupied houses and flats in 1954 to 58.3 per cent in 1961, 38.8 per cent in 1966, 28.1 per cent in 1971 and 19.6 per cent in 1976. Although the bulk of rented accomodation is provided by public authorities (and this situation will continue in the forseeable future), there has been a considerable increase in the proportion of home ownership in the Australian Capital Territory since 1954. The proportion of houses and flats owned or being purchased by instalments has risen from 19.5 per cent in 1954 to 29.0 per cent in 1961, 45.6 per cent in 1966 and 51.8 per cent in 1971. Home building activity in the Woden Valley, Weston Creek and Tuggeranong south-west of the former city area and in Belconnen north-west of the former city area has continued to expand, and at June 1976 there were 17,227 occupied dwellings in the Woden Valley and Weston Creek area, 15,514 occupied dwellings in the Belconnen area and 3,060 occupied dwellings in the Tuggeranong area. *See also* Chapter 19, Housing and Construction.

Municipal services

Since its establishment, Canberra has been developed as a garden city. The development of new areas of parkland and the maintenance of existing tree and lawn areas is the responsibility of the City Parks Administration of the Department of the Capital Territory. During the eight years ended 30 June 1977, approximately 3 million trees and shrubs have been propagated by the Department for 'planting out' in the city. The area of parks, garden and sports grounds under maintenance at 30 June 1977 was about 5,800 hectares. Municipal services are also provided by the Department of the Capital Territory.

The water supply, sewerage and drainage systems in the Australian Capital Territory are under the control of the Department of Construction.

At 30 June, 1975–76, 56,161 metres were connected to the city water supply. The city draws its supply through 31 reservoir installations (of which 4 are paired reservoirs) from 3 storages on the Cotter River. The total capacity of these storages is 91,000 megalitres. A further storage with a capacity of 125,000 megalitres has recently been constructed on the Queanbeyan River. In 1975–76, 46,181 megalitres of water were consumed in Canberra, whose population was 201,501. An additional 2,929 megalitres were supplied to Queanbeyan, N.S.W., whose population was 19,700.

Canberra's sewage is disposed of through treatment works at Weston Creek, Belconnen and Fyshwick. The present treatment works will be superseded by the Lower Molonglo Water Quality Control Centre presently under construction.

At 30 June, 1975, 1,683 kilometres of sewers, 14 kilometres of rising sewerage mains, 1,828 kilometres of stormwater drains and a total length of 1,708 kilometres of water line were laid.

Production

See also the chapter dealing with particular subjects.

Lands

Reference has been made in earlier issues of the Year Book to the general conditions of land tenure in the Australian Capital Territory and to the area of alienated and leased land. The chapter Rural Industry in Year Book No. 61 contains statistical information of these subjects. *See also* § 1. Canberra: Fifty Years of Development, Year Book No. 49, page 123.

Under the *Seat of Government (Administration) Act* 1910, no Crown lands in the Territory may be sold or disposed of for any estate in freehold except in pursuance of some contract entered into before the commencement of the Act. In general, leases of land in the city area are granted under the *City Area Leases Ordinance* 1936. In special circumstances land may be leased for purposes other than business or residential under the *Leases (Special Purposes) Ordinance* 1925 and for church purposes under the *Church Lands Leases Ordinance* 1924. As considerable areas of Government owned land in the Territory are not immediately required in connection with the establishment of the city, they have been leased for agricultural or grazing purposes under the *Leases Ordinance* 1918 for terms consistent with the expected growth of Canberra. Some lands in the Territory, in areas generally remote from the city, remain in private ownership under freehold title. A program of progressive acquisition of this land is being implemented.

The Australian Territory at Jervis Bay, comprising about 73 square kilometres, was acquired from New South Wales for the possible provision of port facilities in connection with the Australian Capital Territory. A portion of the area is occupied by the Royal Australian Naval College (H.M.A.S. *Creswell*) and a Royal Australian Navy airfield. Several blocks fronting Sussex Inlet have been leased for guest houses and holiday camps, etc. under the *Leases Ordinance* 1918, and an area of land in the Murray's Beach area has been set aside for possible use as an atomic power station under the control of the Australian Atomic Energy Commission. Apart from picnic and camping areas, experimental planting, afforestation and soil conservation activities, the remainder of the area is being maintained in its natural state.

Forestry

Forestry field operations in the Australian Capital Territory began in 1915 with the planting of pines on the denuded slopes of Mount Stromlo to arrest soil erosion and improve visual quality of the landscape. In 1926 a program for development of commercial forests was approved following a comprehensive review of the Territory's potential for forest development. Major reviews of this program were made in 1932, 1954 and 1967, always, however, retaining the basic policy of systematic conservation and development. Much of the better native forest has been placed under management and forestry operations including fire protection treatment have been extended to some 44,500 hectares of natural forest in the Cotter catchment and adjacent areas. The more productive stands in these areas were harvested extensively to provide timber for Canberra's post-war expansion and were subsequently treated to promote regeneration and protect the quality of water harvested.

The policy of forest management in the Australian Capital Territory has been formulated to cater not only for commercial timber production but also to provide recreation facilities and an attractive visual environment for the national capital and to protect the water supply. These policies can be broadly summarised as follows:

(*a*) To manage and develop plantations and hardwood forest area in the Australian Capital Territory and Jervis Bay for production of timber and arrange sales of all forest produce;
(*b*) To initiate and maintain a variety of growth and environmental experiments to produce information for management decisions; and
(*c*) To develop and implement viable multiple use policies for forest areas with particular emphasis on recreation potential and facilities, quality of water harvest in catchments and conservation of the environment.

The forest authority is charged with the management of some 74,000 hectares of land in the Australian Capital Territory. Of this, some 48,000 hectares carry native forest or woodland. As at 31 December 1976, the total area of coniferous plantations in the Australian Capital Territory and Jervis Bay was 14,511 hectares nett. Of 204 hectares at Jervis Bay, the majority consisted of *Pinus radiata* (Monterey Pine) and *Pinus elliottii* (Slash Pine). (Fifty-two hectares at Jervis Bay were destroyed by fire). The plantations in the Australian Capital Territory consisted mainly of *Pinus radiata* and *Pinus ponderosa* (Yellow Pine). Total area of *Pinus radiata* was 13,366 hectares.

In 1976–77 there was no commercial production of hardwood timber from the Australian Capital Territory and Jervis Bay. The volume of softwood cut increased to 156,000 cubic metres (121,000 cubic metres in 1975–76). The total value of this unprocessed timber unloaded at the mill (milldoor value) was $2.69 m. This returned $1.45 m in residuals and royalties (milldoor value less contractual logging costs).

Agricultural, pastoral and secondary industries

During 1976–77 the production of the more important items of the agricultural and pastoral industry was: wheat 524 tonnes; wool 484,000 kg; whole milk 1,303,000 litres; meat (carcass weight), fresh 8,742 tonnes. The numbers of livestock depastured at 31 March 1977 were: cattle 19,429, sheep 124,243; pigs 16.

As in the Northern Territory, the secondary industries established in the Australian Capital Territory are largely the services industries associated with the growth of the Territory.

The following table shows preliminary results of the Manufacturing Census taken in respect of the years ended 30 June 1975 and 1976.

AUSTRALIAN CAPITAL TERRITORY
MANUFACTURING ESTABLISHMENTS(*a*)

		1974–75	*1975–76*
Establishments operating during year	No.	104	104
Persons employed(*b*)	No.	3,672	3,479
Wages and salaries	$m	27.0	28.6
Turnover	$m	94.6	94.2
Opening stocks at 30 June	$m	8.9	9.1
Closing stocks at 30 June	$m	10.3	10.0
Purchases, transfers in and selected expenses	$m	46.7	43.1
Value added(*c*)	$m	49.2	52.0

(*a*) From 1974–75 all manufacturing establishments owned by multi-establishment enterprises and single establishment manufacturing enterprises with four or more persons employed. (*b*) Average over whole year. Includes working proprietors. (*c*) Sales, transfers out and other operating revenue plus increase (or less decrease) in the value of stocks, less purchases, transfers in and selected expenses.

Transport and communication

Canberra is connected with the railway system of New South Wales at Queanbeyan by a line 8 kilometres long. This line was opened for goods traffic on 25 May 1914 and for passenger traffic on 15 October 1923. Direct or linking services operate between Canberra and Sydney, and Canberra and Melbourne. Two airlines provide many services daily each way on the Sydney-Canberra-Melbourne route. Regular motor-coach services link Canberra with towns in New South Wales, Victoria and South Australia. The total length of roads in the Territory at 30 June 1975 was: bitumen and concrete, 1,437 kilometres; gravel, 375 kilometres; other formed roads, 42 kilometres; total, 1,854 kilometres. There are five radio broadcasting stations in the Territory: 2CY and 2CN of the national broadcasting system; two commercial stations, 2CA and 2CC; and one community station, 2XX. There are two television stations: ABC Channel 3 of the national broadcasting system and CTC Channel 7, a commercial station.

Social

See also Chapter 12, Education; Chapter 10, Health; and Chapter 11, Law and Order.

Schools

The Education Ordinance 1937 provides for the compulsory attendance at school of children between the ages of six and fifteen years. Government schools are administered by the A.C.T. Schools Authority, which became a Statutory body in January 1977. The Authority is representative of teachers, parents and the community. The A.C.T. Schools Accrediting Agency within the Authority accredits courses and administers student assessment procedures for years 11 and 12. These procedures replaced the New South Wales Higher School Certificate examination at the end of 1976. There were 2,572 teachers in A.C.T. government schools in February 1977, an increase of 72 over 1976.

In February 1977 there were sixteen government high schools in the Australian Capital Territory, and four secondary colleges which commenced operations in 1976. High schools cater for years 7 to 10 and secondary colleges for years 11 and 12. Secondary students enrolled numbered 14,192.

Sixty-three schools provide courses at primary levels, three of these being in rural districts and one in the Jervis Bay area. The number of pupils enrolled in primary grades of government schools at February 1977 was 24,731.

Hartley Street Centre for physically handicapped children is located at Turner Primary School. It incorporates a pre-school section. Special units for deaf children are situated at Ainslie and Mawson Primary Schools and Telopea Park High School.

Blind children attend Turner Primary School and partially sighted children enrol in the school nearest their home. They are provided with special equipment by the A.C.T. Schools Authority. Classes for mildly intellectually handicapped children are provided at Ainslie, Curtin South and Scullin Primary Schools, Lyneham High School and the Woden School. Three special schools incorporating pre-school sections serve the needs of moderately and some severely intellectually handicapped children. Eleven primary schools cater for children of junior primary age who are unable to adjust to a normal class situation. One of these classes specialises in the care of children with language and communication disorders. Reading centres operate at Yarralumla and North Ainslie Primary Schools. Special English classes for migrant children are available at twenty-three primary schools, four high schools and one secondary college. A number of children with physical, mild intellectual, and partial hearing handicaps are being integrated into neighbourhood schools. Educational guidance services are provided by the Education Clinic and through counselling staff attached to schools.

The Introductory English Centre is attached to Telopea Park High School. It is for secondary school migrant children arriving in the Territory with no English. They attend for about three months and then return to their own school.

The sixty-nine pre-schools, including two in the Jervis Bay area and a mobile unit which visits outlying areas of the Australian Capital Territory, provide pre-school facilities for approximately 5,000 children between the ages of three and five years. Provision is made at all pre-schools for the additional enrolment of children who have minimal problems such as speech, behavioural and family problems.

In August 1977 there were thirty-one non-government schools in Canberra, including thirteen secondary schools. At the same time, 7,995 pupils were enrolled in the primary grades of non-government schools and 5,856 pupils were enrolled in the secondary forms of non-government schools.

Other educational institutions

The Commonwealth Department of Education is responsible for the administration of technical and further education in the A.C.T., although the New South Wales Department of Technical and Further Education is continuing to provide some education services for A.C.T. Technical and Further Education (TAFE) institutions.

The Canberra and Bruce Colleges of TAFE provide trade, post-trade, certificate and craft and leisure-type courses at their main campuses and at several annexes. At 1977, thirty-seven departments in eleven schools of study enrolled 13,191 students in 205 courses.

The Canberra School of Art is a tertiary institution administered by the Commonwealth Department of Education. It offers diploma studies, non-vocational courses and programs for student teachers from Canberra College of Advanced Education Teacher Education courses.

The Canberra School of Music is administered by the Commonwealth Department of Education and provides a four-year full-time course as well as individual study in a range of instruments and voice. A new school to cater for between 1,000 and 1,200 students was opened in 1976.

The Canberra College of Advanced Education is administered by a Governing Council constituted under an Act of Parliament and offers courses in six schools—Administrative Studies, Applied Science, Liberal Studies, Teacher Education, Information Sciences and Environmental Design. Courses have a professional or vocational orientation and lead to master and bachelor degrees, and associate and graduate diplomas. An enrolment of 5,100 is expected in 1978.

The Australian National University (ANU) consists of a School of General Studies and an Institute of Advanced Studies. The School of General Studies is composed of Faculties of Arts, Asian Studies, Economics, Law and Science. It carries out both undergraduate and post-graduate training and research. The Institute of Advanced Studies is a centre for research and training in research. It includes the John Curtin School of Medical Research and Research Schools of Physical Sciences, Social Sciences, Pacific Studies, Chemistry, Biological Sciences and Earth Sciences.

The University has established the following centres: Centre for Resource and Environmental Studies; Humanities Research Centre; North Australia Research Unit (based in Darwin); Survey Research Centre; Centre for Continuing Education; Computer Centre; Office for Research in Academic Methods; and the National Health and Medical Research Council Social Phsyciatry Research Unit.

Continuing education

The Centre for Continuing Education, which is run by the Australian National University, is intended to foster 'the learning society' by enriching the contacts between the university and the community to their mutual advantage. The Centre offers a wide range of courses in the natural and social sciences and the humanities.

The Canberra Evening College is a continuing education service of the A.C.T. Schools Authority. It provides courses leading to the award of a certificate for entry to post-secondary and tertiary institutions, and to the Public Service Qualifying Examinations. The College also offers a variety of craft and cultural courses.

The Canberra College of Technical and Further Education offers courses in various forms of arts and crafts including home crafts, shorthand and typing and several units in Home Science.

The Learning Information Network provides an information directory on post-compulsory adult learning opportunities in the A.C.T. It is maintained by the Department of Education's Further Education Branch and the ANU's Centre for Continuing Education.

Apprenticeship training

At 30 June 1977, 1,832 apprentices were in training in the 72 declared apprenticeship trades in the Australian Capital Territory. Apprentices were employed by 1,034 approved employers of which 199 were new employers. During 1976–77 there were 1,162 new applications for apprenticeship. New indentures totalling 676 were registered, representing an increase of 19.9 per cent in new indentures on 1975–76 totals. In this period 408 apprenticeships were completed and 173 cancelled. Trade courses at the Canberra and Bruce Colleges of TAFE are supplemented, where required, by remedial classes in mathematics and English.

Adult migrant education

Free part-time day and evening classes in English are conducted in various community centres and schools throughout Canberra. The former Narrabundah Infants' Centre has been used as the Migrant Education Centre since 1976. A special feature of the programs is a Rehabilitation through English Program designed to provide injured migrants with the necessary English for re-employment.

Accelerated English tuition on a full-time basis of 300 hours over ten weeks is available to permanent residents and *bona fide* immigrants to Australia. Selection for these courses is made by the Department of Education on the basis of economic need.

Migrants can also apply to learn English by correspondence if this is more convenient. Home tutor kits are available from the Good Neighbour Council for individual tuition in private homes.

Law, order and public safety

The Australian Capital Territory has a Supreme Court and a Court of Petty Sessions. The Territory is policed by the Australian Capital Territory Police Force which at 30 June 1976 had an authorised establishment of 585 officers and men of various ranks. The distribution is Commissioner (1), Deputy Commissioner (1), Superintendent (5), Senior Inspector (3), Inspector First Class (8), Inspector Second Class (8), Sergeant First Class (23), Sergeant Second Class and Sergeant Third Class (77) and Constables (459).

The Force is divided into three General Duties Divisions, a Criminal Investigation Division, an Administrative Services Division, a Recruitment and Training Division, a Traffic Division, a Legal Division and a Services Division. These in turn are divided into a number of Sections and Units including Scientific, Breath Analysis, Fraud, Licensing, Criminal and Traffic Adjudication, Water Police, Accident Investigation, Jervis Bay, Police Youth and Citizens' Club, Rural Patrol, Search and Rescue, Underwater Recovery, Emergency Squad, Drugs, Emergency Mobile Communications, Safety Education, Process Serving, Highway Patrol, Motor Cyclists, Driver Training, Amphometer, Motor Squad, Fingerprints, Criminal Records, Gazette and Communications Room. At present the Force operates from Police Stations at Civic Centre (Headquarters), Woden Town Centre, Belconnen and Jervis Bay, with Water Police Headquarters at Yarralumla Bay. The Traffic Division operates from a station situated in Lonsdale Street, Braddon and the Recruitment and Training Division operates in Ainslie Avenue, Civic Centre in a building previously known as Gorman House.

Tourism

Tourism has quickly become a major factor in the ACT economy and in the planning and development of the Capital. A large-scale, Government-commissioned study conducted in 1975–76 estimated 2.5 million visitors for the year, spending $72 million in the A.C.T. and Queanbeyan. It produced a provisional forecast of 3.8 to 4.1 million visitors to the area by 1986.

An inter-Departmental Working Group is examing the study data with the objective of formulating a strategy for the orderly development and operation of A.C.T. tourism in the years ahead. These functions are presently performed by the A.C.T. Government Tourist Bureau, a section of the Department of the Capital Territory, while the planning and development of tourist facilities remain the responsibility of the National Capital Development Commission.

The Tourist Bureau operates a highway reception and information centre north of the city, but has no State branch offices. Total operational costs, including salaries and overtime, will amount to approximately $685,000 in 1977–78. Nevertheless—and bearing in mind that not only the Bureau but many of the Capital's tourist attractions are Government-owned and operated and free to the public—the benefit–cost ratio of A.C.T. tourism is most favourable: for every dollar spent by Government, three are returned by way of indirect taxes. Most popular features are the Australian War Memorial, which receives more than 600,000 visitors a year; Parliament House; the National Library; the Royal Australian Mint; and the mountain lookouts and reserves. Major additions to these, now under construction, will be the National Gallery and High Court buildings and the Black Mountain Telecommunication Tower.

Finance

In the following table, identifiable receipts and outlay relating to the Australian Capital Territory have been classified in a National Accounts form. The table covers transactions of the Commonwealth Government in respect of the Australian Capital Territory in the Consolidated Revenue Fund and the following trust funds: Australian Capital Territory Forestry, Australian Capital Territory Housing, Australian Capital Territory Transport and Australian Capital Territory Suspense. In addition, details of the financial transactions of the following public corporations are also covered: Australian Capital Territory Electricity Authority, Commonwealth Brickworks, National Capital Development Commission, the Canberra Theatre Trust, and the Canberra College of Advanced Education. Not included are revenue derived by the Commonwealth Government from income taxes, sales tax, etc. levied in the Australian Capital Territory; outlay on items of a national character such as defence, civil aviation, railways, etc.; and payments to residents from the National Welfare Fund.

AUSTRALIAN CAPITAL TERRITORY: RECEIPTS AND OUTLAY
($'000)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
RECEIPTS					
Taxation—					
Rates on land	4,367	5,171	6,138	7,139	10,464
Liquor	387	459	589	710	984
Motor registration and licences	1,219	1,355	2,398	3,374	4,322
Payroll tax	1,967	3,153	4,149	9,038	10,761
Stamp duties	2,561	3,589	3,995	3,433	4,162
Other taxes, fees, fines, etc.	171	834	683	726	1,401
Interest, rent, etc.	7,708	11,920	13,744	13,514	16,919
Income from public enterprises	3,050	3,349	2,458	864	3,509
Net sale of public corporation securities	432	−38	−102	−214	2,552
Other receipts	2,503	1,018	2,035	1,936	747
Net charge to Commonwealth Government budget	91,305	97,320	166,356	261,646	313,292
Total receipts	**115,670**	**128,130**	**202,443**	**302,166**	**369,113**
OUTLAY					
Final consumption expenditure—					
Law, order and public safety	4,670	6,084	7,390	10,420	10,156
Education	15,831	22,022	32,027	49,019	65,233
Health, social security and welfare	7,744	9,451	15,949	23,857	35,144
Other	19,577	30,205	29,034	43,046	48,755
Expenditure on new fixed assets and stocks—					
Education	9,952	10,038	15,386	22,111	33,669
Health, social security and welfare	8,361	8,343	4,937	11,006	11,098
Housing	−6,151	−8,392	−4,344	7,811	7,749
Community and regional development	16,945	19,313	25,668	36,675	36,467
Protection of the environment	2,545	4,888	8,198	17,301	27,424
Recreation and related cultural services	1,174	1,770	3,630	4,851	7,088
Electricity, gas and water	3,946	3,415	5,718	5,647	12,170
Roads	5,511	7,776	9,432	10,264	11,607
Other	13,390	23,293	23,417	28,419	43,682
Net purchase of existing assets	−15,500	−38,467	−4,935	−5,485	−21,084
Interest paid	558	634	582	664	749
Cash benefits	60	64	23	18	13
Subsidies	28	38	67	120	143
Net advances for housing	26,052	26,601	29,076	29,796	29,451
Grants for private capital purposes	976	1,054	1,188	6,626	9,599
Total outlay	**115,670**	**128,130**	**202,443**	**302,166**	**369,113**

NORFOLK ISLAND

General description

Norfolk Island, discovered by Captain Cook in 1774, is situated in latitude 29° 03′ S., longitude 167° 57′ E. approximately. Its total area is approximately 36 square kilometres, the island being about 8 kilometres long and 5 kilometres wide. It is 1,677 kilometres from Sydney and 1,069 kilometres from Auckland. The coastline, which is 32 kilometres long, consists of almost inaccessible cliffs rising from the waters edge, except for a portion on the south side and the landing place at Cascade on the northern side. The climate is equable, the average daily maximum temperature varying between 18 C and 26 C, and the average annual rainfall is 1,372 millimetres. The resident population is about 1,600.

The island served as a penal station from 1788 to 1813 and from 1825 to 1855. In 1856, 194 descendants of the *Bounty* mutineers were transferred there from Pitcairn Island.

Administration

In 1856 the island was created a distinct and separate settlement under the jurisdiction of the Governor of New South Wales. In 1897 it was made a dependency under the Governor of that Colony, and finally, by the passage of the *Norfolk Island Act* 1913, became a Territory of Australia. It is controlled by the Minister for Administrative Services through an Administrator. The Norfolk Island Council was established pursuant to the *Norfolk Island Act* 1957 and is constituted in accordance with the provisions of the *Norfolk Island Council Ordinance* 1960. The Council may consider and tender advice to the Administrator on any matter affecting the peace, order and good government of Norfolk Island, and must be consulted on certain legislative and financial matters. The Council comprises the Administrator as *ex officio* chairman and voting member and eight members elected biennially.

Economic activity

The major economic activity of the island is tourism. Primary production is not fully adequate for local needs and foodstuffs are imported from New Zealand and Australia, mainly for the tourist trade.

Primary industries. The soil on the island is particularly fertile, the climate equable and the rainfall fairly evenly distributed except for a pronounced dry period in November. This enables a wide range of temperate and semi-tropical products to be cultivated. However, the island's comparative isolation presents trading difficulties, and there is only very limited production of export crops.

Fish abound off the island. In the past a number of ventures have been formed to exploit this resource, but they have been short-lived, mainly because of the lack of a sheltered harbour. A modern whaling station was started on the island in 1955, and production commenced during the second half of 1956. Owing to a marked scarcity of whales after 1961, however, the station was closed down.

An active forestry program is being carried out to increase the resources of Norfolk Island pine and to introduce suitable types of eucalypts.

Tourists. Regular sea and air services to the island are available for those who seek a quiet holiday in surroundings of beauty and historic interest. At present, accommodation consists of flats and hotels as well as licensed and unlicensed guest houses. Further accommodation is being built to meet the steadily increasing number of visitors.

Employment. A large proportion of the population derives its income from various aspects of the tourist industry including the operation of hotels and duty-free stores. The Commonwealth Government provides services through staff from the Departments of Transport and Science (Bureau of Meteorology) and teachers are seconded by the N.S.W. State Education Department. A number of clerical and other positions are available to islanders in the Norfolk Island Administration. Very few people rely for their income entirely on agricultural pursuits.

Trade, transport and communication

Imports to Norfolk Island since the 1939–45 War have risen from $65,000 in 1945–46 to $6.5 million in 1975–76. The major proportion ($3.3 million) in 1975–76 came from Australia and the Pacific Islands, while New Zealand supplied $1.2 million. Exports in 1974-75 amounted to $0.6 million. Exports to Australia and the Pacific Islands, the principal market, amounted to $0.4 million, while exports to New Zealand amounted to $143,000. No duties are chargeable on goods imported into Australia from Norfolk Island if (i) the goods are produced or manufactured in Norfolk Island and shipped direct to Australia, and (ii) not goods which, if manufactured or produced in Australia, would be subject to excise duty.

Three shipping companies operate services to Norfolk Island at approximately monthly intervals, linking the Island with Australia, New Zealand and other islands in the South Pacific area.

A passenger and air freight service between Sydney and Norfolk Island is operated by East-West Airlines Ltd six times a week, and more frequently in peak periods. Air New Zealand Limited provides a service four times a week to the Island from Auckland. A light aircraft charter service operates between the island and Brisbane.

There are approximately 80 kilometres of motor roads on the island. A substantial section of the population possesses private motor cars. Hire cars, taxis and scooters are available.

The island has an automatic telephone service and a radio telephone link with Sydney. A local broadcasting service is operated by the Administration.

Education

Education is free and compulsory between the ages of 6 and 15 years. The school, which is conducted for the Administration by the New South Wales Department of Education, conforms to the Australian standard of public education, ranging from Kindergarten to the School Certificate (Fourth Form) examination. The number of students enrolled at 30 June 1976 was 312.

Some bursaries, subject to a means test, are available for pupils who wish to attend a mainland school either to continue their studies beyond the School Certificate level or to undertake high school courses not available on the Island. A limited number of trainee scholarships are available for pupils who have left school and wish to undertake apprenticeship or similar training away from the Island.

Judiciary

The judicial system of Norfolk Island consists of a Supreme Court and a Court of Petty Sessions. The Supreme Court is the highest judicial authority in the Territory and is a superior court of record with original criminal and civil jurisdiction. The jurisdiction of the court is exercised by one judge sitting in court or, to the extent and in the cases provided by or under ordinance, sitting in chambers. The jurisdiction of the Court of Petty Sessions is exercised by the Chief Magistrate or any three magistrates other than the Chief Magistrate.

Finance

Since Norfolk Island became a territory of the Commonwealth Government in 1913 its revenue has been supplemented by annual grants from the Commonwealth Government, internal revenue alone not being sufficient to meet the cost of public works and services. The principal items of revenue and expenditure in recent years were as follows:

NORFOLK ISLAND: REVENUE AND EXPENDITURE
($'000)

	1971–72	*1972–73*	*1973–74*	*1974–75*	*1975–76*
REVENUE					
Government grant	66	120	120	126	126
Customs duty	158	180	319	410	387
Liquor profit	82	107	121	149	184
Company fees	89	164	145	198	178
Sale of stamps	226	107	175	348	297
Vehicle registration and licence fees	22	23	42	43	44
Government advance (repayable)	..	90	..	..	..
All other	106	83	115	134	166
Total revenue	**749**	**874**	**1,037**	**1,408**	**1,382**
EXPENDITURE					
Administration	183	204	233	240	472
Education services	44	126	165	146	209
Health and welfare services	79	91	85	98	176
Repairs and maintenance	176	132	149	211	200
Postal services	75	58	108	150	n.a.
Capital works and services	154	197	63	128	429
Miscellaneous services	30	30	32	104	125
Total expenditure	**741**	**838**	**835**	**1,077**	**1,611**

HEARD ISLAND AND McDONALD ISLANDS

These islands, about 4,100 kilometres south-west of Fremantle, were transferred from the United Kingdom to Australia as from 26 December 1947. The laws of the Australian Capital Territory were declared to be in force in the Territory of Heard Island and McDonald Islands by the *Heard and McDonald Islands Act* 1953. In 1968, the responsibility for the administration of this Act was transferred from the Minister for External Affairs to the Minister for Supply, and in 1972 the responsibility was transferred to the Minister for Science.

In December 1947 an Australian scientific station was established on Heard Island. Meteorological investigations were conducted until the station was closed in March 1955 following the establishment of Mawson station on the Antarctic mainland. Australian expeditions have since visited the island from time to time. Heard Island is about 43 kilometres long and 20 kilometres wide. The McDonald Islands are 43 kilometres to the west of Heard Island. They are small, rocky and precipitous. The first known landing on McDonald Island, the largest of the group of the same name, took place on 27 January 1971 when two members of the Australian National Antarctic Research Expeditions (ANARE) paid a short visit on their way to the Heard Island station.

AUSTRALIAN ANTARCTIC TERRITORY

An Imperial Order in Council of 7 February 1933 placed under Australian authority all the islands and territories other than Terre Adèlie situated south of 60° S latitude and lying between 160° E longitude and 45° E longitude. The Order came into force with a Proclamation issued by the Governor-General on 24 August 1936 after the passage of the *Australian Antarctic Territory Acceptance Act* 1933. The boundaries of Terre Adèlie were definitively fixed by a French Decree of 1 April 1938 as the islands and territories south of 60° S latitude lying between 136° E longitude and 142 E longitude. The *Australian Antarctic Territory Act* 1954 declared that the laws in force in the Australian Capital Territory are, so far as they are applicable and are not inconsistent with any ordinance made under the Act, in force in the Australian Antarctic Territory. In 1968 responsibility for the administration of this Act was transferred from the Minister for External Affairs to the Minister for Supply, and in 1972 the responsibility was transferred to the Minister for Science.

On 13 February 1954 the Australian National Antarctic Research Expeditions (ANARE) established a station on MacRobertson Land at latitude 67° 36′ S and longitude 62° 53′ E. The station was named Mawson in honour of the late Sir Douglas Mawson and was the first permanent Australian station to be set up on the Antarctic continent. Meteorological and other scientific research is conducted at Mawson, which is a centre for coastal and inland survey expeditions.

A second Australian scientific research station was established on the coast of Princess Elizabeth Land on 13 January 1957 at latitude 68° 35′ S and longitude 77° 58′ E. The station was named in honour of the late Captain John King Davis, second-in-command of two of Mawson's expeditions and master of several famous Antarctic ships. The station was temporarily closed on 25 January 1965 and re-opened on 15 February 1969. On 4 February 1959 the Australian Government accepted from the United States Government custody of Wilkes station, which was established by the United States on 16 January 1957 on Vincennes Bay at latitude 66° 15′ S and longitude 110° 32′ E. The station was named in honour of Lieutenant Charles Wilkes who commanded the 1838–42 United States expedition to the area. The station was closed on 19 February 1969 when activities were transferred to Casey station built about 2 kilometres south of Wilkes. Casey station, which was opened on 19 February 1969, was named in honour of Baron Casey, former Governor-General of Australia, in recognition of this long association with Australia's Antarctic effort.

In 1957, as part of the International Geophysical Year (IGY), twelve nations co-operated in research programs covering a broad range of scientific pursuits. The outstanding co-operation between nations in the Antarctic during the IGY gave rise to discussions which resulted in the Antarctic Treaty. On 1 December 1959 the Antarctic Treaty was signed by the nations that had been active in Antarctica during the IGY, including all of those with territorial claims. The original signatories were Argentina, Australia, Belguim, U.K., Chile, France, Japan, New Zealand, Norway, South Africa, the U.S.S.R., and U.S.A. The Treaty entered into force for Australia on 23 June 1961. The Treaty, *inter alia*, reserves the Antarctic area south of 60°S latitude for peaceful purposes, provides for international co-operation in scientific investigations and research, and preserves for the duration of the Treaty the *status quo* with regard to territorial sovereignty, rights and claims.

The original signatories of the Treaty, the Consultative Parties, meet at about two yearly intervals at Antarctic Treaty Consultative Meetings. Only Consultative Parties may participate in the Consultative Meetings. Nine Consultative Meetings have been held since the Treaty was signed, the first being held in Canberra in 1961.

The Treaty makes provision for other states to accede to it. Since 1959, seven nations have acceded: Brazil, Poland, German Democratic Republic, Czechoslovakia, Romania, Denmark and the Netherlands. The Treaty also makes provision in Article IX (2) for acceding nations to become Consultative Parties ". . . during such times as the Contracting Party demonstrates its interest in Antarctica by conducting substantial research activity there, such as the establishment of a scientific station, or the despatch of a scientific expedition". In July 1977 Poland was acknowledged by the Consultative Parties to have fulfilled the requirements established in Article IX (2) of the Antarctic Treaty and, as a consequence, to have the right to appoint representatives to participate in the Consultative Meetings. Poland subsequently attended the Ninth Antarctic Treaty Consultative Meeting.

COCOS (KEELING) ISLANDS

General description

The Cocos (Keeling) Islands, two separate atolls comprising some twenty-seven small coral islands with a total area of about 14 square kilometres, are situated in the Indian Ocean in latitude 12° 05′ S and longitude 96° 53′ E. They lie some 2,750 kilometres north-west of Perth and 3,700 kilometres almost due west of Darwin.

The main islands of the Territory are West Island, the largest, about 10 kilometres long, on which are the airport, the Administration and the community of mainland-recruited employees; Home Island, where the headquarters of the Clunies-Ross Estate and Cocos Malay community are located; Direction Island; South Island; and Horsburgh Island. North Keeling Island, which forms part of the Territory, lies about 24 kilometres to the north of the group and has no inhabitants.

The main atoll is low-lying, flat, and thickly covered by coconut palms, and surrounds a lagoon which has an anchorage in the northern part but which is extremely difficult for navigation.

The climate is equable and pleasant, usually being under the influence of the south-east trade winds for about three-quarters of the year. However, the winds vary at times, and meteorological reports from the Territory are particularly valuable for those engaged in forecasting for the eastern Indian Ocean. The temperature varies between 21°C and 32°C, and the average yearly rainfall is about 2,513 mm. There are occasional violent storms. The estimated population at 30 June 1977 was 444.

History and administration

Summarised particulars of the discovery of the islands and their history up to 1946, when they became a dependency of the Colony of Singapore, are given in Year Book No. 51, page 140, and in earlier issues. On 23 November 1955 the Cocos Islands ceased to form part of the Colony of Singapore and were placed under the authority of Australia. The transfer was effected by an Order in Council made by Her Majesty Queen Elizabeth the Second under the Imperial Act titled the *Cocos Islands Act* 1955 and by the *Cocos* (*Keeling*) *Islands Act* 1955 of the Commonwealth Parliament whereby the islands were declared to be accepted by Australia as a Territory to be known as the Territory of Cocos (Keeling) Islands.

Responsibility for the administration of the Territory rests with the Minister for Administrative Services. An Administrator was appointed to administer the Territory on behalf of Australia on 23 July 1975 under the *Cocos Administration Ordinance*. This Ordinance provides for an upgrading of the level of Government representation in the Territory. Until 23 July 1975 an official Representative appointed by the Minister under the then *Official Representative Ordinance* 1955 exercised such powers and functions in relation to the Territory as were delegated to him by the Minister under the *Cocos* (*Keeling*) *Islands Act* 1955 or were otherwise conferred on him under that Act or under any other law of the Territory. The laws of the Colony of Singapore which were in force in the islands immediately before the date of the transfer were, with certain exceptions, continued in force by the *Cocos* (*Keeling*) *Islands Act* 1955. They may be amended or repealed by Ordinances made under the provisions of that Act which empower the Governor-General to make Ordinances for the peace, order and good government of the Territory.

Transport and communication

There is an airport of international standard at West Island, controlled by the Administrator under licence from the Department of Transport. There is a regular Perth-Cocos (Keeling) Islands-Christmas Island-Perth charter service every 2 weeks. Under charter arrangements, a shipping service operates to the Territory at intervals of about six months. A radio teletype link with Perth is maintained by the Administration. There are local postal and telephone services, and a non-commercial broadcasting station.

CHRISTMAS ISLAND

Christmas Island is an isolated peak situated in the Indian Ocean in latitude 10° 25′ S, longitude 105° 40′ E. It is approximately 360 kilometres south from Java Head at the south entrance to Sunda Strait, 1,300 kilometres from Singapore and 2,600 kilometres from Perth. Christmas Island covers an area of about 140 square kilometres. It consists of a central plateau about 150 to 250 metres above sea level with several prominent rises up to 360 metres high. The plateau descends to the sea in a series of steep slopes alternating with terraces. Sea cliffs over 200 metres high run along a considerable portion of the coastline except in a few places, the chief of which is Flying Fish Cove where the principal settlement is located and which is also the only anchorage.

The climate is pleasant, the prevailing winds coming from the south-east to east-south-east from May to December, and occasionally shifting round to between north and west from December to April (the wet season). The average yearly rainfall is about 2,673 mm with a marked summer incidence. The porous nature of the ground prevents the formation of pools of water, but there are several good springs which maintain an adequate supply of fresh water for the small population and the installations. The mean average temperature is about 27°C, and does not vary greatly throughout the year.

The economy of the Territory is based entirely on the mining and extraction of phosphate, but prospects for its diversification are being explored.

At 30 June 1976 the estimated population was 3,322 (2,378 males and 944 females).

Education

From January 1975, the Government implemented in the Territory a series of new education arrangements which based the education system on an Australian curriculum. A summary of the previous arrangements are given in Year Book No. 60, page 1088, and in earlier issues.

Under the new arrangements, the Christmas Island Area School provides pre-school, primary and secondary education. The Christmas Island Technical Education Centre conducts trades and commercial courses, and provides adult education classes and supervision of correspondence courses from the Western Australian Education Department's Technical Extension Service. At 30 June 1976, 684 children were enrolled at the Area School. At the end of 1976, the approved teaching staff establishments were 51 at the Area School and 6 at the Technical Education Centre.

History and administration

Summarised particulars of the history of Christmas Island up to its administration by the United Kingdom as a separate Crown Colony (from 1 January 1958, pending transfer to Australia) are given in Year Book No. 51, page 141, and in earlier issues. On 1 October 1958 the island was transferred to Australia by the *Christmas Island Act* 1958 and an Official Representative was appointed to administer the Territory. In 1968 an Administrator was appointed, replacing the Official Representative and upgrading the level of Government representation. Responsibility for the administration and government of the Territory rests with the Minister for Administrative Services, and the Administrator manages day to day affairs in the Territory under delegation from the Minister. The laws which were in force on the island at 30 September 1958 were continued as the laws of the Territory after its transfer to Australia. They may be amended or repealed by Ordinances or by laws made under Ordinances of the Territory.

Phosphate deposits

The only commercial activity carried out is the mining of phosphate at several locations on the island. The British Phosphate Commissioners act as managing agents for the Christmas Island Phosphate Commission. During 1975-76, 997,247 tonnes of phosphate were exported to Australia and New Zealand. In addition 147,167 tonnes of phosphate dust were exported to South-East Asia and 601 tonnes to Australia.

Transport and communication

Transport to and from the Island is maintained by vessels operated under charter by the British Phosphate Commissioners as managing agents for the Christmas Island Phosphate Commission. One vessel makes regular trips between Christmas Island and Singapore-Malaysian ports, and other vessels carry phosphate to Australian and New Zealand ports.

A post office is staffed and operated by the Administration. The British Phosphate Commissioners operate an internal telephone system. A radio station is used for messages via Perth and Singapore and for communication with ships at sea. A limited-power broadcasting station, VLU 2, also operates.

Regular air charter flights commenced in 1974. The charter operates every two weeks from Perth via the Cocos (Keeling) Islands. Charter flights also operate approximately every two weeks alternatively from Singapore and Kuala Lumpur.

CORAL SEA ISLANDS

The Coral Sea Islands were declared to be a Territory of Australia by the *Coral Sea Islands Act* 1969 which was slightly amended in 1973. The scattered reefs and islands comprise only a few square kilometres of actual land area and are often little more than sandbanks. They spread over a sea area of 1 million square kilometres between the Great Barrier Reef, latitude 12°S and longitude 157° 10′ E. The Territory, which is administered by the Minister for Administrative Services, has no permanent inhabitants. There is a manned weather station on Willis Island, some 500 kilometres east of Cairns, while a number of unmanned facilities are on various other islands in the Territory.

STATISTICAL SUMMARY: AUSTRALIA

In earlier issues of the Year Book, it was the practice to include in the Statistical Summary figures for every tenth year of the period 1861 to 1901, plus the latest year for which data were available. In each subsequent issue, the latest year available was substituted for the year immediately preceding it until the next tenth year had been reached, and the earliest year in the series was eliminated as space was needed. In consequence of this system, no single issue of the Year Book contained a continuous yearly series.

In this and recent issues of the Year Book, this defect has been remedied in part by the inclusion of a continuous series back to the year 1941 where possible, with earlier tenth years back to 1901 (the National Accounts series has been carried back to 1900–01 in single years). In issue No. 39, pages xxviii–xxix, some of the series are shown for every tenth year from 1861 to 1941. There are, however, discrepancies between the original series and the series now published.

Breaks in series, preliminary figures, etc., are indicated by the symbols shown on page xiii of this Year Book.

STATISTICAL SUMMARY: AUSTRALIA

DEMOGRAPHY

Year ended 31 December—	*Population(a)*			*Natural increase*	*Overseas migration(b)*	*Marriages*		*Divorces (c) and judicial separations*	*Births*		*Deaths*		*Infant deaths*	
	Males	*Females*	*Persons*			*No.*	*Rate(d)*		*No.*	*Rate(d)*	*No.*	*Rate(d)*	*No.*	*Rate(e)*
	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000
1901 .	2,005	1,820	3,825	56.6	17.8	28	7.3	..	103	27.2	46	12.2	10.7	103.6
1911 .	2,382	2,192	4,574	74.3	77.7	39	8.8	1	122	27.2	48	10.7	8.4	68.5
1921 .	2,799	2,712	5,511	82.1	17.3	47	8.6	1	136	25.0	54	9.9	9.0	65.7
1931 .	3,333	3,220	6,553	61.9	−10.8	39	6.0	2	119	18.2	57	8.7	5.0	42.1
1941 .	3,599	3,545	7,144	(*f*) 63.3	(*g*) 5.2	75	10.6	3	135	18.9	(*h*) 71	(*h*) 10.0	5.3	39.7
1948 .	3,909	3,884	7,792	(*f*) 101.1	(*g*) 55.1	75	9.7	7	178	23.1	(*h*) 77	(*h*) 10.0	4.9	27.8
1949 .	4,047	3,998	8,046	106.0	150.0	73	9.2	7	181	22.9	75	9.5	4.6	25.3
1950 .	4,191	4,116	8,307	112.4	152.5	76	9.2	7	191	23.3	78	9.6	4.7	24.5
1951 .	4,311	4,217	8,528	111.5	111.4	77	9.2	7	193	23.0	82	9.7	4.9	25.2
1952 .	4,426	4,314	8,740	120.1	94.0	74	8.6	7	202	23.4	82	9.5	4.8	23.8
1953 .	4,503	4,399	8,903	122.0	42.9	71	8.0	8	202	22.9	80	9.1	4.7	23.3
1954 .	4,598	4,492	9,090	120.5	68.2	71	7.9	7	202	22.5	82	9.1	4.5	22.5
1955 .	4,714	4,598	9,312	125.6	97.3	72	7.8	7	208	22.6	82	8.9	4.6	22.0
1956 .	4,829	4,702	9,531	126.0	94.0	72	7.6	6	212	22.5	86	9.1	4.6	21.7
1957 .	4,930	4,814	9,744	135.4	78.7	74	7.6	6	220	22.9	85	8.8	4.7	21.4
1958 .	5,026	4,921	9,947	138.8	65.4	74	7.5	7	223	22.6	84	8.5	4.6	20.5
1959 .	5,132	5,029	10,161	137.8	76.8	74	7.4	7	227	22.6	89	8.9	4.9	21.5
1960 .	5,253	5,139	10,392	141.9	90.1	75	7.3	7	230	22.4	88	8.6	4.6	20.2
1961 .	(*i*) 5,374	(*i*) 5,268	(*i*) 10,643	(*i*) 151.8	61.5	77	7.3	7	240	22.8	89	8.5	4.7	19.5
1962 .	5,470	5,376	10,846	144.4	62.5	79	7.4	7	237	22.2	93	8.7	4.8	20.4
1963 .	5,572	5,484	11,055	141.3	71.6	81	7.4	8	236	21.6	95	8.7	4.6	19.5
1964 .	5,683	5,597	11,280	129.1	99.3	86	7.7	8	229	20.6	101	9.0	4.4	19.1
1965 .	5,794	5,712	11,505	123.7	104.9	94	8.2	9	223	19.6	100	8.8	4.1	18.5
1966 .	5,891	5,814	11,705	119.2	86.9	(*i*) 96	(*i*) 8.3	10	(*i*) 224	(*i*) 19.3	(*i*) 105	(*i*) 9.0	(*i*) 4.2	(*i*) 18.7
1967 .	5,992	5,920	11,912	126.6	91.9	100	8.5	10	229	19.4	103	8.7	4.2	18.3
1968 .	6,108	6,037	12,146	131.4	113.1	106	8.8	11	241	20.0	110	9.1	4.3	17.8
1969 .	6,238	6,169	12,407	143.7	129.0	112	9.2	11	250	20.4	106	8.7	4.5	17.9
1970 .	6,365	6,299	12,663	144.5	122.9	116	9.3	12	258	20.6	113	9.0	4.6	17.9
1971 .	6,572.0	6,498.1	13,070.1	165.7	103.6	118	9.1	13	276	21.4	111	8.6	4.8	17.3
1972 .	6,676.7	6,607.2	13,283.9	155.2	56.3	114	8.6	16	265	20.1	110	8.3	4.4	16.7
1973 .	6,777.7	6,712.8	13,490.5	136.9	67.5	113	8.4	16	248	18.5	111	8.3	4.1	16.5
1974 .	6,885.3	6,824.2	13,709.5	129.3	87.2	111	8.1	18	245	18.0	116	8.5	4.0	16.1
1975 .	6,948.0	6,901.3	13,849.3	124.0	13.5	104	7.6	24	233	16.9	109	7.9	3.3	14.3
1976 .	7,014.3	6,976.9	13,991.2	115.1	25.6	110	7.9	61	228	16.4	113	8.1	3.2	13.8

(*a*) At 31 December. (*b*) Excess of arrivals over departures. Minus sign (−) indicates excess of departures over arrivals. From 1 July 1971 net migration has been defined as the excess of overseas arrivals over overseas departures, classified as permanent and long-term (long term includes visits to or absences from Australia lasting one year or longer). (*c*) Decrees made absolute, including decrees for nullity of marriage. (*d*) Number per 1,000 of mean population. (*e*) Number per 1,000 live births. (*f*) Excess of births over civilian deaths from September 1939 to June 1947. (*g*) Excludes movements of defence personnel from September 1939 to June 1947. (*h*) Excludes deaths of defence personnel from September 1939 to June 1947. (*i*) Includes Aborigines.

PRIMARY INDUSTRIES

AGRICULTURE

	Wheat			*Oats*			*Barley*			*Maize*		
Season	*Area*	*Production*	*Average yield*	*Area*	*Production*	*Average yield*	*Area*	*Production*	*Average yield*	*Area*	*Production*	*Average yield*
	mil hectares	mil tonnes	tonnes	'000 hectares	mil tonnes	tonnes	'000 hectares	mil tonnes	tonnes	'000 hectares	mil tonnes	tonnes
1901–02	2.07	1.05	0.51	187	0.18	0.95	30	0.03	1.14	119	0.18	1.50
1911–12	3.01	1.95	0.65	250	0.17	0.70	47	0.05	0.99	138	0.23	1.65
1921–22	3.93	3.51	0.89	297	0.22	0.74	121	0.14	1.14	124	0.20	1.61
1931–32	5.97	5.18	0.87	439	0.28	0.63	139	0.14	1.03	109	0.18	1.65
1941–42	4.86	4.53	0.93	591	0.40	0.68	317	0.41	1.29	122	0.19	1.55
1948–49	5.09	5.18	1.02	716	0.43	0.60	409	0.40	0.99	74	0.13	1.79
1949–50	4.95	5.93	1.20	707	0.50	0.70	421	0.44	1.05	78	0.15	1.94
1950–51	4.72	5.00	1.06	711	0.46	0.64	437	0.52	1.19	69	0.12	1.75
1951–52	4.20	4.34	1.03	957	0.63	0.65	452	0.50	1.10	69	0.10	1.49
1952–53	4.13	5.30	1.28	1,119	0.79	0.71	557	0.79	1.43	70	0.13	1.79
1953–54	4.35	5.38	1.24	865	0.60	0.69	730	0.94	1.28	72	0.13	1.78
1954–55	4.32	4.58	1.06	1,042	0.60	0.57	684	0.67	0.97	69	0.13	1.88
1955–56	4.11	5.31	1.29	1,357	1.02	0.76	766	0.94	1.23	68	0.12	1.78
1956–57	3.19	3.65	1.15	1,034	0.64	0.62	847	1.12	1.32	73	0.14	1.90
1957–58	3.58	2.65	0.74	1,197	0.57	0.48	858	0.69	0.81	74	0.14	1.92
1958–59	4.21	5.84	1.39	1,608	1.58	0.98	963	1.43	1.48	73	0.17	2.35
1959–60	4.93	5.39	1.09	1,226	0.85	0.69	963	0.78	0.81	75	0.17	2.28
1960–61	5.44	7.43	1.37	1,472	1.38	0.94	1,145	1.54	1.35	75	0.16	2.12
1961–62	5.96	6.71	1.13	1,253	1.00	0.80	965	0.94	0.98	85	0.19	2.18
1962–63	6.66	8.34	1.25	1,332	1.25	0.94	820	0.90	1.09	85	0.19	2.23
1963–64	6.67	8.91	1.34	1,373	1.24	0.90	815	0.98	1.21	87	0.17	1.96
1964–65	7.25	10.02	1.38	1,415	1.27	0.90	835	1.12	1.34	86	0.17	2.03
1965–66	7.09	7.05	1.00	1,525	1.10	0.72	930	0.95	1.02	80	0.12	1.57
1966–67	8.43	12.67	1.50	1,723	1.94	1.13	1,011	1.40	1.38	82	0.19	2.33
1967–68	9.08	7.55	0.83	1,368	0.72	0.53	1,057	0.83	0.79	81	0.18	2.23
1968–69	10.85	14.80	1.37	1,567	1.71	1.09	1,341	1.65	1.23	67	0.15	2.24
1969–70	9.49	10.55	1.11	1,374	1.25	0.91	1,521	1.70	1.12	80	0.19	2.41
1970–71	6.48	7.89	1.22	1,553	1.61	1.04	2,000	2.35	1.18	86	0.21	2.47
1971–72	7.14	8.61	1.21	1,241	1.28	1.03	2,535	3.07	1.21	78	0.21	2.74
1972–73	7.60	6.59	0.87	995	0.74	0.74	2,140	1.73	0.81	59	0.14	2.34
1973–74	8.95	11.99	1.34	1,182	1.11	0.94	1,894	2.40	1.27	46	0.11	2.32
1974–75	8.31	11.36	1.37	897	0.87	0.98	1,826	2.51	1.38	51	0.13	2.59
1975–76	8.56	11.98	1.40	988	1.14	1.15	2,329	3.18	1.37	47	0.13	2.77
1976–77p	8.94	11.83	1.32	991	1.07	1.08	2,320	2.85	1.23	55	n.y.a.	n.y.a.

AGRICULTURE—*continued*

	Hay			*Potatoes*			*Sugar-cane(a)*			*Vineyards*		*All crops*
Season	*Area*	*Production*	*Average yield*	*Area*	*Production*	*Average yield*	*Area*	*Production*	*Average yield*	*Area*	*Wine made*	*Area*
	'000 hectares	'000 tonnes	tonnes	'000 hectares	'000 tonnes	tonnes	'000 hectares	'000 tonnes	tonnes	'000 hectares	mil. litres	mil. hectares
1901–02	683	2,057	3.01	44	328	7.4	35	1,390	39.5	26	24	3.4
1911–12	1,019	2,914	2.86	53	306	5.8	41	1,709	41.8	25	23	4.9
1921–22	1,212	3,965	3.27	60	394	6.5	52	2,476	47.7	37	39	6.2
1931–32	1,066	3,218	3.02	59	403	6.9	98	4,281	43.8	46	65	8.6
1941–42	1,116	3,632	3.25	40	338	8.4	103	5,236	50.8	53	71	(*b*)8.3
1948–49	639	2,329	3.64	48	467	9.6	108	6,815	63.2	55	149	(*b*)8.5
1949–50	650	2,469	3.80	54	479	8.8	114	6,959	61.1	55	149	(*b*)8.4
1950–51	557	2,096	3.76	51	418	8.1	110	7,165	65.1	55	118	(*b*)8.1
1951–52	627	2,382	3.80	48	517	10.8	114	5,412	47.5	55	160	(*b*)8.1
1952–53	713	2,809	3.94	55	438	8.0	113	7,079	62.5	55	136	(*b*)8.4
1953–54	783	3,098	3.96	52	557	10.7	138	9,159	66.5	56	144	(*b*)8.7
1954–55	803	2,902	3.61	43	476	10.9	151	10,248	67.7	55	109	9.0
1955–56	907	3,683	4.06	38	408	10.8	151	9,044	59.9	55	104	9.3
1956–57	753	3,092	4.10	41	527	12.9	150	9,421	62.9	53	140	8.1
1957–58	905	3,016	3.33	48	585	12.2	152	9,397	61.8	53	154	9.0
1958–59	1,221	5,171	4.23	42	584	13.8	150	10,377	69.4	53	148	10.4
1959–60	852	3,227	3.79	44	589	13.4	127	9,147	72.0	53	129	10.6
1960–61	1,203	5,160	4.29	37	458	12.3	138	9.313	67.5	53	154	12.0
1961–62	920	3,752	4.08	38	534	14.0	157	9.730	62.1	54	190	12.0
1962–63	1,101	4,793	4·35	46	677	14.7	163	12,940	79.6	54	136	13.0
1963–64	1,053	4,338	4.12	41	571	13.8	169	12,313	72.9	55	172	13.0
1964–65	1,130	5,043	4.46	36	516	14.5	190	15,312	80.4	56	177	14.0
1965–66	1,125	4,246	3.77	39	649	16.7	204	14,382	70.6	57	156	14.0
1966–67	1,415	6,473	4.58	40	653	16.3	226	16,953	75.1	56	190	16.0
1967–68	502	1,246	2.48	43	669	15.6	224	17,025	76.1	57	202	16.3
1968–69	428	1,728	4.04	46	811	17.7	230	18,708	81.3	58	239	16.6
1969–70	428	1,514	3.54	43	762	17.6	213	15,784	74.2	61	294	15.6
1970–71	349	1,274	3.65	39	774	20.1	221	17,645	80.0	64	255	13.4
1971–72	341	1,247	3.66	40	822	20.3	234	19,391	83.0	67	290	14.3
1972–73	453	1,224	2.70	37	721	19.7	242	18,928	78.3	69	280	14.3
1973–74	325	1,034	3.22	34	649	19.0	226	19,278	85.4	70	295	15.2
1974–75	216	669	3.10	38	742	19.7	253	20,418	80.7	71	n.a.	13.9
1975–76	230	738	3.21	34	696	20.59	257	21,959	85.51	71	70	14.6
1976–77p	292	n.y.a.	n.y.a.	37	n.y.a.	n.y.a.	288	23,344	81.00	72	n.y.a.	15.1

(*a*) Cane cut for crushing. (*b*) Excludes Northern Territory.

PRIMARY INDUSTRIES—*continued*

PASTORAL, DAIRYING, ETC.

Year ended 30 June—	Livestock(a)				Wool (b)(c)	Butter	Cheese	Meat(d)			
	Horses	Cattle	Sheep	Pigs				Beef and veal	Mutton and lamb	Pigmeat	Total meat
	mil.	mil.	mil.	mil.	mil. kg	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes
1902 . .	1.6	8.5	72	0.9	245	(e)46	(e)5.3	n.a.	n.a.	n.a.	n.a.
1912 . .	2.3	11.8	97	1.1	362	(e)96	(e)7.2	n.a.	n.a.	n.a.	n.a.
1922 . .	2.4	14.4	86	1.0	328	(e)121	(e)14.8	345	222	51	618
1932 . .	1.8	12.3	111	1.2	457	177	14.3	355	312	72	739
1942 . .	1.6	13.6	125	1.4	529	170	30.6	542	378	124	1,043
1948 . .	1.2	13.8	103	1.3	456	165	42.1	571	300	91	962
1949 . .	1.1	14.1	109	1.2	480	168	43.9	587	326	95	1,007
1950 . .	1.1	14.6	113	1.1	518	176	45.5	616	364	92	1,072
1951 . .	1.0	15.2	116	1.1	507	167	45.0	662	279	87	1,027
1952 . .	0.9	14.9	118	1.0	490	137	41.3	591	287	86	964
1953 . .	0.9	15.2	123	1.0	581	170	47.4	686	401	84	1,171
1954 . .	0.8	15.6	127	1.2	565	162	49.8	716	371	85	1,171
1955 . .	0.8	15.8	131	1.3	582	194	45.9	731	394	101	1,227
1956 . .	0.8	16.5	139	1.2	643	212	39.3	763	386	95	1,245
1957 . .	0.7	17.3	150	1.3	710	196	45.9	828	373	90	1,290
1958 . .	0.7	16.9	149	1.4	650	179	36.6	804	428	103	1,336
1959 . .	0.7	16.3	153	1.3	722	197	44.5	921	500	104	1,525
1960 . .	0.6	16.5	155	1.4	762	201	45 7	764	583	102	1,449
1961 . .	0.6	17.3	153	1.6	737	185	47.9	643	584	109	1,336
1962 . .	0.6	18.0	158	1.7	770	202	56.6	804	596	122	1,522
1963 . .	0.5	18.5	159	1.4	759	206	59.6	929	603	116	1,648
1964 . .	0.5	19.1	165	1.5	810	207	59.2	1,001	595	113	1,710
1965 . .	0.5	18.8	171	1.7	809	206	62.6	1,026	594	122	1,743
1966 . .	n.a.	17.9	158	1.7	754	209	59.6	946	608	135	1,690
1967 . .	0.5	18.3	164	1.8	799	222	69.8	879	596	142	1,617
1968 . .	n.a.	19.2	167	2.1	803	196	70.5	904	665	150	1,718
1969 . .	n.a.	20.6	175	2.3	885	198	74.8	935	680	162	1,777
1970 . .	0.5	22.2	180	2.4	926	223	76.3	1,010	755	174	1,940
1971 . .	n.a.	24.4	178	2.6	891	203	77.6	1,047	825	182	2,054
1972 . .	n.a.	27.4	163	3.2	880	195	80.9	1,168	956	194	2,319
1973 . .	n.a.	29.1	140	3.3	735	185	93.4	1,438	713	236	2,388
1974 . .	n.a.	30.9	145	2.5	701	175	95.8	1,310	457	211	1,978
1975 . .	n.a.	32.8	152	2.2	794	(f)161	(f)98.6	1,534	520	175	2,229
1976 . .	n.a.	33.4	149	2.2	747	148	112.6	1,783	584	176	2,543

(*a*) At 31 December of previous year for years to 1942, at 31 March thereafter. (*b*) In terms of greasy. (*c*) 1901–02 and 1911–12, year ended previous December; then until 1946–47, year ended March; 1947–48 onwards, year ended June. (*d*) Carcass weight in terms of fresh meat. (*e*) Year ended previous December. (*f*) From 1974–75 excludes the production of certain small producers.

MINERALS

Year ended 31 December—	Copper (a)	Gold (a)	Lead (a)	Zinc (a)	Iron ore	Black coal	Brown coal	Crude oil
	'000 tonnes	'000 grams	'000 tonnes	'000 tonnes	mil. tonnes	mil. tonnes	mil. tonnes	'000 cu m
1901 . . .	29.9	102,642	n.a.	(b)	n.a.	7.0		..
1911 . . .	46.1	77,263	225.3	241.9	(b)	10.7		..
1921 . . .	11.2	23,577	82.3	141.7	0.7	13.1		..
1931 . . .	13.9	18,510	150.8	75.4	(b)	10.8		..
1941 . . .	22.7	46,553	295.7	251.2	2.5	19.1		..
1949 . . .	14.0	27,653	215.2	194.7	1.5	21.8		..
1950 . . .	17.9	27,046	229.0	201.0	2.4	24.3		..
951 . . .	18.4	27,855	215.4	192.3	2.5	25.9		..
952 . . .	19.2	30,495	232.0	199.6	2.9	27.9		..
953 . . .	38.1	33,442	273.7	243.2	3.3	27.1		..
954 . . .	42.6	34,766	289.4	256.7	3.6	29.6		..
955 . . .	48.1	32,629	300.7	260.7	3.6	29.9		..
956 . . .	55.4	32,031	304.3	282.5	4.0	30.3		..
957 . . .	60.2	33,714	339.1	324.0	3.9	31.2		..
958 . . .	76.9	34,338	333.6	298.4	4.0	32.6		..
959 . . .	96.5	33,751	321.4	279.8	4.2	33.9		..
960 . . .	111.2	33,800	313.1	322.6	4.4	38.1		..
961 . . .	97.2	33,476	274.0	316.2	5.4	40.9		..
962 . . .	108.7	33,245	376.0	342.9	4.9	42.3		..
963 . . .	114.8	31,849	416.9	357.1	5.6	44.0		..
964 . . .	105.7	29,979	380.9	350.1	5.8	47.2		198
965 . . .	91.8	27,298	367.9	354.8	6.8	52.9		417
966 . . .	111.3	28,521	370.8	375.3	11.1	56.0		539
967 . . .	91.8	25,049	381.8	407.0	17.3	59.0		1,208
968 . . .	109.6	24,316	388.8	422 4	26.6	64.2		2,206
969(e) . .	125.3	22,713	417.7	444.4	32.5	43.3	(f)23.1	2,238
970(e) . . .	142.3	20,496	459.4	502.0	45.1	48.5	(f)23.9	4,872
971(e) . . .	173.0	19,108	416.4	444.1	57.1	49.7	(f)22.8	14,937
972(e) . . .	171.9	23,253	420.8	497.5	62.1	53.5	(f)23.3	19,038
973(e) . . .	198.7	20,002	385.0	507.0	74.6	59.8	(f)24.1	20,669
974(e) . . .	246.7	16,271	370.4	441.3	91.5	59.3	(f)26.4	23,096
975(e) . . .	235.6	15,061	416.5	508.2	98.2	70.1	(f)27.3	23,096
976(e) . . .	218.3	16,901	396.7	479.3	92.7	69.3	(f)29.2	23,839
977(e) . . .	211.3	15,305	415 3	475.5	95.6	75.7p	(f)31.0p	24,555

FORESTRY

Year ended 30 June—	Sawn output of Aust. grown timber
	'000 cu m
1902	(c)1,067
1912	(c)1,428
1922	1,392
1932	559
1942	2,157
1950	2,886
1951	2,976
1952	3,287
1953	3,162
1954	3,304
1955	3,419
1956	3,424
1957	3,348
1958	3,282
1959	3,445
1960	3,589
1961	3,346
1962	3,190
1963	3,341
1964	3,509
1965	3,615
1966	3,558
1967	3,448
1968	3,476
1969	(d)3,325
1970	(d)3,386
1971	3,438
1972	3,367
1973	3,408
1974p	3,339
1975p	2,799

(*a*) Metallic content of minerals produced. (*b*) Less than 0.05. (*c*) Year ended previous December. (*d*) Excludes estimated uantity of timber from logs peeled or sliced for veneers. (*e*) Year ended 30 June. (*f*) Includes brown coal used for briquette roduction.

SECONDARY INDUSTRIES

FACTORIES(*a*)

				Net value of production(*d*)							Value of	
Year ended 30 June—	*Number*	*Persons employed (b)*	*Salaries and wages paid(c)*	*Chemicals, etc.*	*Industrial metals, etc.*	*Textiles, etc.*	*Clothing*	*Food, etc.*	*Paper, etc.*	*All groups*	*Plant and machinery(e)*	*Land and buildings(e)*
	'000	'000	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m
1902(*f*)	(*g*)	(*g*)	(*g*)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	58.2	n.a.	n.a.
1912(*f*)	14.5	312	55	2.2	24.1	15.0		23.6	8.5	108.3	63.2	65.0
1922	18.0	379	136	6.4	47.2	38.4		54.4	18.0	225.0	156.2	134.6
1932	21.7	337	112	15.8	45.6	13.8	22.2	57.4	19.2	222.0	243.1	213.2
1942	27.0	725	360	59.6	239.8	42.0	47.2	106.4	34.2	633.0	338.4	312.7
1949	40.1	890	678	67.1	421.7	71.7	104.5	179.6	70.6	1,137.5	493.0	465.5
1950	41.6	917	772	81.3	492.5	85.9	115.4	202.0	86.0	1,323.1	571.2	519.1
1951	43.1	969	983	105.4	654.0	109.2	143.5	236.6	109.5	1,687.7	673.2	605.6
1952	45.8	978	1,224	127.4	826.2	113.2	162.2	282.2	136.4	2,049.7	820.3	719.0
1953	47.7	933	1,270	135.7	842.6	129.7	165.6	328.7	136.6	2,165.7	987.1	828.9
1954	49.6	990	1,410	164.6	936.6	157.1	187.1	355.8	158.6	2,454.1	1,161.4	966.9
1955	51.1	1,031	1,563	196.3	1,065.9	156.8	196.8	373.1	181.1	2,731.0	1,396.6	1,112.0
1956	52.4	1,060	1,707	238.3	1,193.9	163.6	204.9	395.6	198.1	3,001.4	1,595.7	1,307.1
1957	53.2	1,063	1,782	273.8	1,281.7	182.9	211.0	428.9	217.4	3,244.2	1,834.1	1,519.4
1958	54.0	1,074	1,859	291.3	1,389.0	183.0	216.1	449.9	241.4	3,457.4	2,025.5	1,698.1
1959	54.9	1,088	1,941	322.4	1,471.6	191.3	221.5	469.1	263.4	3,685.2	2,216.8	1,895.8
1960	56.7	1,132	2,173	360.3	1,700.4	216.7	237.7	520.1	298.2	4,161.1	2,443.2	2,129.2
1961	57.8	1,145	2,289	366.1	1,795.9	213.6	247.2	542.5	318.6	4,349.8	2,785.6	2,389.1
1962	58.5	1,121	2,287	364.3	1,770.3	211.2	252.4	495.5	326.9	4,394.6	3,052.1	2,809.6
1963	59.1	1,168	2,447	411.4	1,954.7	233.8	266.3	636.9	350.9	4,795.2	3,286.5	3,006.8
1964	59.4	1,210	2,652	449.5	2,174.0	252.5	281.4	700.5	379.7	5,270.0	3,480.7	3,204.7
1965	61.0	1,269	2,994	504.8	2,486.1	279.6	302.3	757.1	426.9	5,896.8	3,766.3	3,505.9
1966	61.7	1,294	3,163	542.7	2,647.8	282.8	319.0	818.3	459.5	6,251.9	4,154.7	3,776.6
1967	62.5	1,309	3,408	627.6	2,912.9	303.1	341.5	892.3	503.3	6,877.0	4,706.8	4,061.2
1968	63.0	1,331	3,666	687.0	3,163.6	315.0	360.1	937.5	549.0	7,430.9	4,962.2	4,303.2
1969(*h*)	35.9	1,264	3,908	633.0	3,201.6	301.0	409.2	1,184.4	620.7	7,475.5	n.a.	n.a.
1970	35.7	1,297	4,329	681.8	3,551.9	310.3	452.1	1,321.9	701.8	8,261.7	n.a.	n.a.
1972	36.1	1,303	5,257	804.1	4,052.0	333.7	521.5	1,683.9	818.1	9,703.2	n.a.	n.a.
1973	36.4	1,298	5,820	885.5	4,337.7	376.8	563.9	1,943.5	915.4	10,746.0	n.a.	n.a.
1974	37.1	1,338	7,177	1,076.2	5,529.4	481.1	676.1	2,126.0	1,110.5	13,149.2	n.a.	n.a.
1975(*i*)	27.0	1,245	8,531	1,172.2	6,635.8	409.2	696.8	2,650.5	1,279.4	15,246.4	n.a.	n.a.

(*a*) Excludes Northern Territory and Australian Capital Territory before 1 July 1964. (*b*) Average over whole year; includes working proprietors. (*c*) Excludes amounts drawn by working proprietors. (*d*) Value added in process of manufacture (i.e. value of output less value of materials and fuel used). (*e*) Depreciated or book value at end of year, including estimated value of rented premises and machinery. (*f*) Year ended previous December. (*g*) Owing to variation in classification, effective comparison is not possible. (*h*) Direct comparison with figures for previous years are not possible (for details, *see* page 427). (*i*) All manufacturing establishments owned by multi-establishment enterprises and single establishment manufacturing enterprises with four or more persons employed.

PRIMARY INDUSTRIES

GROSS VALUE OF PRODUCTION OF PRIMARY INDUSTRIES

Year ended 30 June—	*Crop production*	*Pastoral*	*Dairying*	*Poultry*	*Bee-farming*	*Total Agri-culture*	*Hunting*	*Forestry*	*Fishing*	*Total primary excluding mining*
	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m
1902	47.6	54.4	15.2	4.0	0.2	121.4	n.a.	(*a*)5.6	(*b*)	127.0
1912	77.6	105.4	32.2	8.0	0.2	223.4	n.a.	9.6	2.2	235.2
1922	163.8	150.2	70.6	18.0	0.2	402.8	n.a.	18.2	2.8	423.8
1932	149.0	123.1	66.1	17.1	0.2	355.5	3.2	15.4	3.3	377.4
1942	201.0	198.7	91.1	24.8	0.9	516.4	10.8	23.3	4.2	554.7
1949	445.6	535.8	170.4	62.0	3.4	1,217.2	17.1	46.0	9.6	1,289.9
1950	563.5	744.3	202.2	67.0	1.7	1,578.6	12.8	50.7	9.8	1,651.9
1951	557.0	1,510.5	221.0	74.9	1.9	2,365.3	14.4	62.2	11.3	2,453.2
1952	664.3	899.6	260.6	97.0	1.7	1,923.3	14.8	82.7	13.3	2,034.1
1953	765.9	1,115.0	337.7	109.7	2.4	2,330.8	12.6	86.6	15.8	2,445.8
1954	743.9	1,115.3	347.1	109.9	3.2	2,319.4	11.5	94.7	17.7	2,443.3
1955	679.3	1,058.7	363.9	103.0	3.2	2,208.0	11.2	99.1	19.5	2,337.8
1956	769.9	1,036.2	395.7	107.6	3.9	2,313.2	13.4	110.0	19.6	2,456.2
1957	704.3	1,356.1	376.8	110.0	5.1	2,552.3	13.4	115.2	23.1	2,704.0
1958	681.7	1,089.8	370.7	110.9	3.8	2,256.9	13.7	114.1	22.8	2,407.5
1959	919.9	1,076.1	400.7	109.6	3.8	2,509.9	14.3	116.4	24.5	2,665.1
1960	820.7	1,275.2	425.4	119.7	5.1	2,646.1	15.4	108.1	27.2	2,796.8
1961	1,071.4	1,130.6	409.5	130.2	3.8	2,745.4	14.8	108.4	28.5	2,897.1
1962	1,008.3	1,187.3	412.5	121.7	4.0	2,733.9	13.3	100.1	31.7	2,879.0
1963	1,136.6	1,287.1	439.4	123.6	3.5	2,990.2	12.8	101.6	34.1	3,138.7
1964	1,228.4	1,562.7	463.5	138.2	6.0	3,398.9	15.0	108.0	35.4	3,557.3
1965	1,320.0	1,454.5	505.3	137.4	5.1	3,422.3	14.6	116.3	42.4	3,595.6
1966	1,181.3	1,467.8	508.0	154.6	4.3	3,316.0	15.6	120.3	45.8	3,497.7
1967	1,639.3	1,486.1	523.8	171.6	4.0	3,824.7	13.5	117.7	48.8	4,004.7
1968	1,268.8	1,395.2	504.1	169.3	4.6	3,342.1	12.1	118.8	58.5	3,531.5
1969	1,717.3	1,536.8	513.7	176.2	3.0	3,947.0	12.1	119.5	63.0	4,141.6

(*a*) Includes Fisheries. (*b*) Included in Forestry.

PRIMARY INDUSTRIES—*continued*

The classification categories 'Pastoral', 'Dairying', 'Poultry' and 'Bee-farming' employed in the previous table have been replaced by a more appropriate commodity classification. Direct comparison with figures for previous years is not possible.

GROSS VALUE OF PRODUCTION OF PRIMARY INDUSTRIES

Year ended 30 June—	*Crops*	*Livestock slaughterings and other disposals(a)*	*Livestock products*	*Total Agriculture*	*Forestry*	*Fishing*	*Hunting*
	$m	$m	$m	$m	$m	$m	$m
1970 . . .	1,453.8	1,007.7	1,268.6	3,730.1	125.0	63.3	12.5
1971 . . .	1,490.8	1,009.9	1,079.0	3,579.7	137.2	77.2	10.2
1972 . . .	1,597.6	1,134.4	1,235.6	3,967.7	151.2	92.1	10.2
1973 . . .	1,582.4	1,542.2	1,832.5	4,957.1	170.6	100.7	12.1
1974 . . .	2,858.7	1,696.0	1,857.0	6,411.7	193.3	108.6	12.5
1975 . . .	3,206.0	1,019.2	1,652.8	5,878.0	212.6	107.7	13.8
1976 . . .	3,249.5	1,246.4	1,679.5	6,175.5	227.1	146.6	18.0
1977p . .	3,192.3	1,681.9	1,876.4	6,750.6	248.3	205.7	23.4

(*a*) Includes adjustment for net exports (overseas and interstate) of live animals.

	GROSS VALUE OF PRODUCTION			BUILDING			WAGES AND PRICES		
Year ended 30 June—	*Mining and quarrying*	*Factories*	*Grand total*	*New dwellings completed(a) number*	*New dwellings completed(a) value*	*Value of work done on all buildings(b)*	*Year ended 31 December—*	*Weekly wage rates index adult males(c)*	*Retail price index numbers six State capital cities combined(d)*
	$m	$m	$m	'000	$m	$m			
1902 . .	44.0	(*e*)58.2	229.2	n.a.	n.a.	n.a.	1901 . .	n.a.	88
1912 . .	46.6	(*e*)108.3	390.1	n.a.	n.a.	n.a.	1911 . .	n.a.	100
1922 . .	40.0	225.0	688.8	n.a.	n.a.	n.a.	1921 . .	n.a.	(*h*)168
1932 . .	27.0	220.0	504.8	n.a.	n.a.	n.a.	1931 . .	n.a.	145
1942 . .	66.8	633.0	1,115.0	n.a.	n.a.	n.a.	1941 . .	38.5	167
1947 . .	65.0	821.7	1,539.2	32.9	72.1	n.a.	1947 . .	49.8	198
1948 . .	85.2	978.6	2,116.3	44.3	108.6	n.a.	1948 . .	55.4	218
1949 . .	96.7	1,137.5	2,287.7	52.7	150.9	n.a.	1949 . .	59.7	240
1950 . .	104.7	1,323.1	2,813.8	57.0	184.7	n.a.	1950 . .	71.5	262
1951 . .	142.3	1,687.7	3,965.4	69.3	255.6	n.a.	1951 . .	85.8	313
1952 . .	194.4	2,049.7	3,911.4	80.1	354.1	n.a.	1952 . .	96.7	367
1953 . .	219.3	2,165.7	4,374.5	80.2	394.5	n.a.	1953 . .	99.2	383
1954 . .	209.8	2,454.1	4,644.2	77.6	398.2	n.a.	1954 . .	101.6	386
1955 . .	236.2	2,731.0	4,832.5	82.1	444.2	n.a.	1955 . .	105.2	394
1956 . .	265.0	3,001.4	5,226.1	78.5	452.5	n.a.	1956 . .	110.8	419
1957 . .	280.0	3,244.2	5,713.5	68.4	419.5	n.a.	1957 . .	112.4	429
1958 . .	253.6	3,457.4	5,547.4	74.6	463.0	811.6	1958 . .	114.3	435
1959 . .	236.7	3,685.2	5,952.7	84.2	527.3	864.9	1959 . .	122.0	443
1960 . .	252.3	4,161.1	6,580.2	90.0	571 0	1,001.6	1960 . .	125.7	459
1961 .	278.1	4,349.8	6,815.0	94.5	627.4	1,130.8	1961 . .	129.5	471
1962 . .	274.5	4,394.6	6,823.5	86.3	593.2	1,076.9	1962 . .	129.8	469
963 . .	291.0	4,795.2	7,472.6	87.7	610.2	1,140.7	1963 . .	133.0	472
964 . .	327.7	5,270.0	8,372.1	96.7	685.8	1,323.9	1964 . .	140.4	483
965 . .	400.1	5,896.8	9,041.4	112.7	823.0	1,555.9	1965 . .	144.3	502
966 . .	443.9	6,251.9	9,295.7	112.8	869.9	1,681.2	1966 . .	152.4	517
967 . .	515.5	6,877.0	10,390.8	111.9	914.8	1,745.4	1967 . .	159.3	534
968 . .	568.1	7,430.9	10,553.5	120.2	1,022.8	1,914.3	1968 . .	173.4	548
969 .	(*f*)749.2	(*f*)7,468.5		130.7	1,182.1	2,195.4	1969 . .	183.6	564
970 . .	(*f*)1,042.6	(*f*)8,277.8		142.2	1,379.4	2,556.7	1970 . .	191.9	586
971 . .	(*f*)1,289.5	(*g*)n.a.		142.1	1,478.9	2,815.6	1971 . .	218.0	621
972 . .	(*f*)1,428.3	(*f*)9,696.6		143.8	1,628.7	3,132.4	1972 . .	239.8	658
973 . .	(*f*)1,597.3	(*f*)10,725.9		150.6	1,845.5	3,542.4	1973 . .	275.1	720
974 . .	(*f*)1,996.1	(*f*)13,149.1		150.0	2,143.0	4,214.9	1974 . .	373.8	829
975 . .	(*f*)2,641.1	(*f*)15,231.6		141.1	2,454.2	4,713.3	1975 . .	417.6	954
976 . .		(*f*)16,921.0		132.0	2,806.7	5,589.2	1976 . .		1,083
977 . .				144.8	3,635.1	6,445.5	1977 . .		1,216

(*a*) Series commenced 1945–46. Partly estimated before July 1951, and excludes Northern Territory before July 1954. (*b*) Building by rivate contractors, government authorities and owner builders. (*c*) At 31 December, Base; year 1954 = 100, weighted average. Excludes ural industry. (*d*) Base; year 1911 = 100. The index numbers are presented as a continuous series, but they give only a broad indication f long-term trends in retail price levels. They are derived by linking a number of indexes that differ greatly in scope. The successive indexes sed are: from 1901 to 1914, the 'A' Series Retail Price Index; from 1914 to 1946–47, the 'C' Series Retail Price Index; from 1946–47 to 48–49, a composite of Consumer Price Index Housing Group (partly estimated) and 'C' Series Index excluding Rent; and from 1948–49 nwards, the Consumer Price Index. (*e*) Year ended previous December. (*f*) Value added from 1968–69. (*g*) Manufacturing nsus was not conducted. (*h*) November.

OVERSEAS TRADE

Year ended 30 June—	TOTALS Imports	 Exports	PRINCIPAL EXPORTS(*a*) Coal(*b*)	 Wool(*c*)	 Barley	 Wheat	 Petroleum products	 Flour(*d*)
	$m	$m	$m	$m	$m	$m	$m	$m
1902(*g*)	76	100	n.a.	30	n.a.	6	n.a.	n.a.
1912(*g*)	122	158	2	52	..	13	..	3
1922	188	256	2	96	1	57	..	11
1932	104	216	1	74	3	38	..	8
1942	348	338	1	112	..	9	..	8
1949	830	1,085	..	454	14	129	..	67
1950	1,076	1,227	..	618	13	124	..	53
1951	1,488	1,964	..	1,253	18	148	..	66
1952	2,107	1,350	1	636	22	111	..	66
1953	1,028	1,743	2	788	38	104	..	75
1954	1,363	1,657	3	805	30	62	1	60
1955	1,687	1,548	2	693	21	90	2	41
1956	1,642	1,564	2	653	21	93	6	39
1957	1,438	1,986	4	930	25	120	6	43
1958	1,584	1,636	7	720	19	57	11	29
1959	1,593	1,623	5	578	34	77	15	26
1960	1,854	1,875	9	742	23	123	21	30
1961	2,175	1,938	15	649	29	205	24	38
1962	1,769	2,155	27	720	30	285	25	35
1963	2,163	2,152	22	733	10	217	29	31
1964	2,373	2,782	32	926	18	362	20	42
1965	2,905	2,651	51	781	18	297	11	37
1966	2,939	2,721	63	757	12	264	9	25
1967	3,045	3,024	72	840	22	361	30	23
1968	3,264	3,045	85	739	7	343	33	24
1969	3,469	3,374	117	827	18	258	26	22
1970	3,881	4,137	164	803	23	338	27	21
1971	4,150	4,376	195	593	51	433	38	20
1972	4,008	4,893	238	633	73	419	45	13
1973	4,121	6,214	291	1,262	39	273	41	12
1974	6,085	6,914	348	1,248	68	517	95	20
1975	8,083	8,673	721	815	187	1,028	145	49
1976	8,240	9,601	1,063	1,032	201	922	144	39
1977	10,410	11,646	1,282	1,587	223	864	190	26

PRINCIPAL EXPORTS(*a*)—*continued*

Year ended 30 June—	Butter (*c*)	Hides and skins	Meats(*f*)	Fruit(*g*)	Sugar	Lead and lead alloys unworked (*h*)	Ores and concentrates	
							Iron	Other
	$m	$m	$m	$m	$m	$m	$m	$m
1902(*e*)	3	3	5	..	..	n.a.	..	..
1912(*e*)	9	6	9	1	..	3	..	8
1922	16	6	11	6	..	4	..	1
1932	21	5	13	10	5	5	..	..
1942	16	12	28	11	5	14	..	2
1949	48	24	60	30	26	46	..	12
1950	51	30	70	30	28	34	..	12
1951	38	54	61	38	30	43	..	21
1952	10	34	71	44	14	52	..	40
1953	41	40	132	61	43	50	..	39
1954	33	39	114	68	63	46	..	26
1955	50	39	127	68	62	47	..	28
1956	59	42	119	67	49	49	..	38
1957	53	49	100	53	58	63	..	51
1958	32	51	111	72	70	43	..	42
1959	51	47	194	73	64	38	..	33
1960	58	64	177	64	53	33	..	44
1961	41	54	145	61	70	33	..	54
1962	49	64	179	74	68	38	..	48
1963	49	74	226	73	91	35	..	44
1964	57	92	244	92	157	50	..	54
1965	67	80	286	86	113	61	0.8	77
1966	58	89	228	107	94	67	2.7	88
1967	65	86	286	95	100	54	46.0	100
1968	47	62	285	105	98	63	103.0	123
1969	41	75	291	92	122	66	179.5	143
1970	53	88	426	88	116	106	277.8	205
1971	48	71	438	100	150	30	374.3	231
1972	49	80	569	89	211	68	375.5	226
1973	62	189	867	117	250	83	439.1	239
1974	42	148	801	105	223	121	498.7	309
1975	34	102	450	91	645	130	706.5	423
1976	64	142	679	96	570	111	771.0	528
1977	38	239	897	99	638	109	902	675

(*a*) Australian produce. (*b*) Anthracite, bituminous and sub-bituminous (except briquettes). (*c*) Includes greasy wool, slipe, wool scoured and carbonised, wool exported on skins. (*d*) Flour, plain white. (*e*) Includes concentrates and ghee. (*f*) Includes sausage casings, natural. (*g*) Includes juices and fruit preparations. (*h*) Including silver-lead. (*i*) Year ended previous December.

OVERSEAS TRADE—*continued*

PRINCIPAL IMPORTS

Year ended 30 June—	*Vegetable foodstuffs, etc.*	*Apparel, etc.*	*Oil, etc.*	*Metals, etc.*	*Rubber*	*Paper, etc.*
	$m	$m	$m	$m	$m	$m
1902(*a*)	7.2	21.8	2.4	15.6	1.0	3.2
1912(*a*)	7.4	32.4	3.2	28.0	2.8	5.2
1922	8.0	62.0	9.4	45.6	3.4	8.8
1932	5.2	30.8	11.0	14.8	1.6	8.8
1942	12.3	65.3	32.4	143.6	6.0	8.7
1947	18.9	97.8	41.3	105.2	10.9	26.8
1948	33.0	192.1	69.5	170.8	9.8	46.8
1949	27.9	218.4	86.4	256.1	12.6	42.1
1950	41.4	199.5	104.8	454.7	21.4	37.8
1951	49.6	277.3	139.7	479.7	59.3	58.0
1952	50.1	407.1	174.9	786.8	68.0	137.5
1953	37.0	96.5	148.5	452.0	17.4	44.9
1954	51.4	227.6	167.0	504.4	23.7	68.2
1955	71.9	253.5	193.8	638.3	34.1	92.8
1956	44.1	222.7	199.3	644.1	44.1	87.2
1957	51.6	182.7	191.1	530.1	33.4	83.5
1958	51.5	217.0	203.4	564.4	33·3	89.8
1959	55.3	193.9	209.0	585.6	33.6	96.1
1960	54.9	222.1	213.5	710.1	48.5	103.8
1961	60.5	264.9	223.3	871.3	47.3	133.8
1962	56.3	208.4	219.8	630.3	35.5	109.6
1963	55.5	233.3	246.3	850.0	46.7	133.5
1964	61.6	234.0	251.5	947.1	51.2	141.7
1965	66.2	272.1	260.1	1,275.2	66.3	156.5

Year ended 30 June—	*Food and live animals*	*Beverages and tobacco*	*Crude materials, inedible, except fuels*	*Mineral fuels, lubricants and related materials*	*Animal and vegetable oils and fats*	*Chemicals*	*Manufactured goods classified chiefly by materials*	*Machinery and transport equipment*	*Miscellaneous manufactured articles*	*Commodities and transactions of merchandise trade not elsewhere classified*
	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m
1966 . .	110	37	197	252	15	266	590	1,121	220	90
1967 . .	118	38	206	247	15	297	586	1,144	243	110
1968 . .	117	36	224	241	14	309	644	1,250	270	111
1969 . .	128	44	228	252	13	328	688	1,328	298	116
1970 . .	140	48	247	255	16	363	753	1,528	350	124
1971 . .	158	50	235	190	18	410	867	1,644	403	125
1972 . .	160	51	219	194	15	410	856	1,483	432	137
1973 . .	163	52	268	175	13	424	893	1,489	475	119
1974 . .	237	65	415	377	28	580	1,404	2,091	721	108
1975 . .	302	75	390	724	43	786	1,496	3,059	961	125
1976 . .	275	90	387	807	42	709	1,460	3,177	1,045	160
1977 . .	455	99	471	996	54	925	1,891	3,980	1,354	105

(*a*) Year ended previous December.

TRANSPORT AND COMMUNICATION

SHIPPING

Year ended 30 June—	*Vessels on overseas voyages*				*Overseas cargo*				*Vessels on interstate voyages*		*Interstate cargo loaded*	
	Entered		*Cleared*		*Discharged*		*Loaded*		*Entered*			
	No.	*Net tonnage*	*No.*	*Net tonnage*					*No.*	*Net tonnage*		
		mil. tons		mil. tons	mil. tonnes	mil. cubic metres	mil. tonnes	mil. cubic metres		mil. tons	mil. tonnes	mil. cubic metres
1902	(*a*)	(*a*)	(*a*)	(*a*)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1912(*b*)	2,081	5.0	2,093	5.0	n.a.	n.a.	n.a.	n.a.	5,000	6.8	n.a.	n.a.
1922	1,567	4.6	1,544	4.5	(*c*)2.4		(*c*)5.8		4,897	6.4	(*c*)5.5	
1932	1,519	5.7	1,538	5.7	2.1	1.0	6.0	0.8	3,958	5.5	3.1	1.1
1942	1,276	5.2	1,268	5.6	3.8	2.0	2.9	1.5	4,860	6.6	8.2	2.2
1948	1,470	6.1	1,479	5.8	5.1	2.2	4.6	1.4	2,943	4.2	7.2	1.4
1949	1,706	7.5	1,780	7.5	5.9	2.9	5.5	1.5	3,091	4.7	6.3	1.3
1950	1,942	8.7	1,965	8.7	7.8	4.1	5.1	1.6	3,228	5.3	6.5	1.7
1951	1,911	8.6	1,992	8.7	9.2	4.5	5.5	1.5	3,301	5.8	6.8	1.5
1952	2,038	9.0	2,098	9.3	9.9	5.3	4.6	1.4	3,750	7.9	7.8	1.5
1953	1,988	8.7	2,053	8.9	7.9	2.2	6.1	1.6	4,555	9.2	8.6	1.4
1954	2,054	8.9	2,073	8.9	8.7	3.2	5.9	1.5	4,759	9.6	9.3	1.7
1955	2,245	9.9	2,260	10.1	11.2	3.9	6.2	1.6	4,644	9.4	10.4	1.7
1956	2,425	11.2	2,457	11.1	12.6	3.9	6.8	1.8	4,626	9.5	11.8	1.5
1957	2,628	11.8	2,662	11.8	12.8	3.1	8.9	1.6	4,805	9.5	12.1	1.5
1958	2,656	12.4	2,598	12.1	13.9	3.3	7.5	1.7	5,127	9.8	12.8	1.3
1959	2,706	12.9	2,757	13.1	14.5	3.0	8.8	1.7	5,012	9.5	12.5	1.2
1960	2,976	14.5	2,969	14.4	15.7	3.7	10.3	1.7	5,004	9.5	13.1	1.5
1961	3,382	17.3	3,396	17.0	17.5	4.3	14.0	1.8	4,860	9.6	13.9	1.7
1962	3,599	18.9	3,611	18.8	17.8	3.1	17.5	1.8	5,032	9.8	13.9	1.3
1963	3,411	19.0	3,351	18.6	19.8	3.8	15.7	1.8	4,845	9.7	14.6	1.2
1964	3,714	20.7	3,763	20.9	21.1	4.5	20.1	2.1	5,067	10.1	15.9	1.4
1965	3,813	21.7	3,788	21.7	23.6	5.0	20.8	2.2	5,263	13.2	16.6	1.6
1966	3,929	23.0	4,029	23.3	24.5	4.7	22.1	2.3	5,480	15.1	16.4	1.7
1967	3,977	27.4	4,017	27.6	27.5	4.7	33.2	2.2	4,937	15.3	15.9	2.0
1968	3,972	30.1	4,013	30.3	28.0	5.3	42.0	2.4	5,159	15.7	17.5	2.1
1969	4,390	36.4	4,360	36.2	29.8	5.9	55.8	2.3	5,269	15.8	18.8	2.2
1970	4,971	44.5	5,053	44.6	28.7	5.8	78.1	2.4	4,834	17.7	20.8	2.3
1971	5,476	50.8	5,578	51.4	21.8	5.7	101.8	3.0	4,967	23.7	24.9	2.5
1972	5,439	53.1	5,447	53.5	19.5	5.9	108.0	3.2	5,491	27.0	26.4	2.8
1973	5,647	62.6	5,631	62.0	20.2	6.1	132.4	3.5	5,215	28.8	28.0	2.9
1974	5,975	72.0	5,909	71.5	23.1	7.6	150.5	3.1	5,073	28.4	29.5	3.0
1975	6,230	80.3	5,254	80.3	21.9	8.0	164.9	2.9	4,594	25.9	28.5	3.1
1976	5,772	75.0	5,825	75.4	19.7	7.2	156.1	2.5	4,469	24.6	28.2	2.9

(*a*) Separate details not available. Total entrances and clearances for year ended December 1901, 4,028 vessels, 6.5 million tons (*b*) Year ended previous December. (*c*) Tons weight plus tons measurement.

GOVERNMENT RAILWAYS(*a*)

Year ended 30 June—	*Route kilometres* (*b*)	*Train kilometres*	*Passenger journeys*	*Freight-tonnes carried*	*Freight-net tonne-kilometres*
	'000	mil.	mil.	mil.	mil.
1902	20.6	61.5	115	15.7	n.a.
1912	27.0	88.8	228	25.9	n.a.
1922	37.7	90.3	335	32.0	n.a.
1932	43.5	102.7	303	26.5	n.a.
1942	43.8	142.4	475	39.5	n.a.
1947	43.8	137.6	503	38.4	9,165
1948	43.6	141.1	511	40.6	9,703
1949	43.5	148.5	507	42.1	10,158
1950	43.5	150.3	505	41.3	10,143
1951	43.5	142.7	476	41.6	10,264
1952	43.1	150.3	501	45.0	11,046
1953	43.1	142.7	498	44.7	10,750
1954	42.8	150.5	511	47.6	11,370
1955	42.8	152.6	517	48.5	11,929
1956	42.6	154.8	515	47.6	11,894
1957	42.6	153.0	499	48.3	12,203
1958	42.5	145.3	494	46.0	11,132
1959	42.3	146.9	485	48.8	11,970
1960	42.2	140.2	479	52.0	13,091
1961	42.0	149.7	463	56.3	14,370
1962	41.2	149.0	461	56.5	14,427
1963	41.0	149.6	465	56.8	15,131
1964	40.5	155.3	471	62.7	17,170
1965	40.3	155.5	464	65.9	18,224
1966	40.2	151.7	460	65.5	18,050
1967	40.3	150.8	455	69.6	18,832
1968	40.5	152.1	453	72.2	20,054
1969	40.4	151.0	447	77.0	21,463
1970	40.3	156.3	450	83.7	23,973
1971	40.3	156.3	453	87.3	25,206
1972	40.3	153.7	404	88.7	25,403
1973	40.5	152.0	377	92.5	26,582
1974	40.4	151.2	374	97.0	28,329
1975	40.6	150.6	340	103.5	29,792
1976	40.8	150.1	317	104.4	30,809

REGULAR INTERNAL AIR SERVICES

Year ended 30 June—	*Kilometres flown*	*Passengers*		*Freight*		*Mail*	
		Embarkations	*Passenger kilometres*	*Tonnes uplifted*	*Tonne-kilometres*	*Tonnes uplifted*	*Tonne-kilometres*
	mil.	'000	mil.	'000	mil.	'000	mil.
1902	..	..	..	..	..	..	..
1912	..	..	..	..	..	..	..
1922	..	..	..	..	..	..	..
1932	1.4	6	5	0.04	n.a.	0.02	n.a.
1942	12.6	151	122	1.2	1.5	n.a.	0.7
1947	51.5	850	589	12.4	9.8	1.2	1.0
1948	52.1	1,208	810	26.2	19.6	1.3	1.2
1949	56.6	1,409	911	33.9	25.0	1.6	1.3
1950	58.7	1,500	950	44.8	32.6	2.6	2.0
1951	65.5	1,685	1,077	53.9	39.6	2.9	2.2
1952	67.3	1,829	1,162	52.2	39.0	2.4	1.9
1953	62.9	1,706	1,073	52.3	39.7	2.1	1.8
1954	66.0	1,772	1,130	63.0	47.7	2.1	1.8
1955	70.0	1,918	1,233	71.4	54.0	2.1	1.9
1956	70.3	2,020	1,333	76.6	56.8	2.3	2.0
1957	67.8	2,125	1,434	68.1	53.0	2.3	2.0
1958	65.2	2,123	1,447	63.5	48.2	2.4	2.0
1959	64.9	2,235	1,519	57.0	42.0	2.4	2.2
1960	69.5	2,660	1,823	59.3	42.6	4.4	3.8
1961	68.1	2,639	1,786	57.2	41.2	5.4	4.5
1962	66.3	2,666	1,802	51.9	38.1	5.7	4.7
1963	70.3	2,833	1,965	53.9	41.3	5.9	4.9
1964	78.8	3,257	2,266	57.3	44.5	6.4	5.5
1965	84.2	3,764	2,638	63.5	49.5	7.0	5.9
1966	88.5	4,158	2,947	69.0	54.9	7.8	6.7
1967	91.3	4,425	3,174	74.4	58.6	8.7	7.5
1968	91.3	4,668	3,420	77.2	61.8	8.5	7.6
1969	97.1	5,185	3,865	81.6	66.5	9.0	8.0
1970	106.6	5,911	4,511	90.8	74.5	9.6	8.7
1971	114.6	6,340	4,974	91.4	78.0	9.9	9.3
1972	115.9	6,629	5,277	89.9	76.5	10.1	9.6
1973	121.6	7,503	5,543	94.4	84.0	10.1	10.1
1974	135.2	8,858	7,001	112.7	101.3	9.9	9.6
1975	138.9	9,393	7,579	107.8	100.9	9.6	9.3
1976	133.4	9,315	7,483	106.1	100.5	9.7	9.4

(*a*) Particulars of train-kilometres, passenger journeys, freight tonnes carried, and freight net tonne-kilometres refer only to operations for which revenue is received. (*b*) At end of period.

TRANSPORT AND COMMUNICATION—*continued*

	ROAD TRANSPORT					COMMUNICATION					
	Tram trolley-bus and bus services(a)	*Motor vehicles on the register(b)*					*Telephones*			*Broadcasting and television licences in force(b)*	
Year ended 30 June—	*Passenger journeys*	*Motor cars and station wagons*	*Commercial vehicles (c)*	*Motor cycles*	*Total motor vehicles (including motor cycles)*	*Postal matter dealt with(d)*	*Instruments in service (b)*	*Services in operation (b)(e)*	*Telegrams (f)*	*Broadcast listeners'*	*Television viewers'*
	mil.	'000	'000	'000	'000	mil. articles	'000	'000	mil.	'000	'000
1902	n.a.	..	..	..	..	(g)384	(g)36	(g)28	(g)8.2	..	..
1912	360	n.a.	n.a.	n.a.	n.a.	(g)698	(g)118	(g)96	(g)13.9	..	..
1922	569	102			102	778	259	196	16.8	(h)1	..
1932	589	420	96	72	588	887	485	364	13.9	369	..
1942	(i)1,067	451	250	49	751	1,124	739	531	26.1	1,320	..
1947	1,216	548	378	87	1,013	1,235	905	648	35.7	1,678	..
1948	1,199	589	419	100	1,108	1,307	963	688	36.8	1,704	..
1949	1,185	651	457	118	1,225	1,375	1,028	734	37.9	1,763	..
1950	1,076	764	506	134	1,404	1,466	1,110	795	38.0	1,841	..
1951	1,092	879	555	146	1,580	1,526	1,209	870	37.2	1,885	..
1952	1,019	1,028	588	155	1,770	1,482	1,301	939	29.8	1,961	..
1953	988	1,105	587	148	1,840	1,506	1,383	1,001	25.9	1,986	..
1954	981	1,196	611	141	1,947	1,604	1,476	1,070	25.1	2,042	..
1955	966	1,342	654	133	2,130	1,653	1,587	1,153	25.5	2,035	..
1956	927	1,430	693	123	2,246	1,741	1,704	1,240	25.4	2,089	..
1957	833	1,537	710	118	2,366	1,784	1,814	1,318	24.0	2,107	74
1958	803	1,661	731	114	2,506	1,895	1,937	1,407	22.9	2,138	291
1959	778	1,784	755	110	2,649	1,951	2,056	1,491	22.5	2,264	578
1960	758	1,938	784	102	2,824	1,953	2,164	1,562	22.2	2,283	955
1961	726	2,070	800	93	2,963	2,048	2,266	1,631	21.8	2,256	1,217
1962	718	2,201	815	85	3,101	2,101	2,382	1,719	21.6	2,220	1,424
1963	712	2,377	832	77	3,286	2,202	2,523	1,812	21.8	2,240	1,655
1964	702	2,583	846	69	3,498	2,342	2,670	1,919	23.4	2,302	1,882
1965	685	2,792	858	65	3,715	2,443	2,811	2,010	24.3	2,358	2,045
1966	653	2,947	868	64	3,878	2,556	2,978	2,120	25.0	2,526	2,226
1967	621	3,104	880	69	4,053	2,683	3,178	2,235	25.6	2,538	2,405
1968	609	3,305	892	83	4,279	2,648	3,392	2,359	(j)23.4	2,580	2,519
1969	590	3,499	911	98	4,508	2,648	3,599	2,511	(j)23.3	2,630	2,649
1970	575	3,720	938	114	4,772	2,783	3,913	2,704	(j)23.2	2,670	2,758
1971	561	3,935	961	144	5,039	2,806	4,152	2,857	(j)21.2	2,699	2,845
1972	503	4,147	998	180	5,325	2,767	4,400	2,978	(j)20.2	2,758	2,939
1973	516	4,376	1,048	210	5,634	2,828	4,659	3,147	(j)20.4	2,814	3,013
1974	528	4,627	1,100	259	5,986	2,818	5,000	3,361	(j)20.7	(k)2,851	(k)3,022
1975	528	4,896	1,158	279	6,333	2,682	5,267	3,539	(j)18.5	..	..
1976	514	5,124	1,241	296	6,660	2,364	5,502	3,700	(j)15.1	..	..

(*a*) Government and municipal trolley-bus services ceased in August 1969. (*b*) At end of period. (*c*) Open and closed light commercial type vehicles, rigid and articulated trucks, other truck type vehicles and buses. (*d*) Letters, postcards, letter-cards, newspapers, packets, parcels, and registered articles. (*e*) All single lines plus one half the number of duplex lines. Until the introduction of duplex services in December 1948, statistics of exchange lines and telephone services were identical. (*f*) Telegrams despatched to places within Australia and despatched to or received from overseas. (*g*) Year ended previous December. (*h*) Year 1923–24. First year licences issued. (*i*) Tram passenger journeys only before 1942. (*j*) Excludes telegrams received from overseas. These particulars are no longer available. (*k*) Television viewer and broadcast listener's licences were abolished on 17 September 1974.

NATIONAL ACCOUNTS

	GROSS DOMESTIC PRODUCT						GROSS FIXED CAPITAL EXPENDITURE				
	At current prices			At constant prices(a)			At current prices		At constant prices(a)		
Year—	(b)	(c)	(d)	1953–54 prices(d)	1959–60 prices(d)	1966–67 prices(d)	(e)	(d)	1953–54 prices(d)	1959–60 prices(d)	1966–67 prices(d)
	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m
1900–01	419	..	..	..	..	..	56	..	..	..	..
1901–02	444	..	..	..	..	..	74	..	..	..	..
1902–03	428	..	..	..	..	..	65	..	..	..	..
1903–04	449	..	..	..	..	..	51	..	..	..	..
1904–05	445	..	..	..	..	..	50	..	..	..	..
1905–06	478	..	..	..	..	..	53	..	..	..	..
1906–07	538	..	..	..	..	..	72	..	..	..	..
1907–08	536	..	..	..	..	..	75	..	..	..	..
1908–09	583	..	..	..	..	..	76	..	..	..	..
1909–10	624	..	..	..	..	..	80	..	..	..	..
1910–11	683	..	..	..	..	..	98	..	..	..	..
1911–12	733	..	..	..	..	..	125	..	..	..	..
1912–13	802	..	..	..	..	..	146	..	..	..	..
1913–14	865	..	..	..	..	..	154	..	..	..	..
1914–15	833	..	..	..	..	..	132	..	..	..	..
1915–16	909	..	..	..	..	..	125	..	..	..	..
1916–17	943	..	..	..	..	..	123	..	..	..	..
1917–18	963	..	..	..	..	..	112	..	..	..	..
1918–19	1,089	..	..	..	..	..	146	..	..	..	..
1919–20	1,257	..	..	..	..	..	209	..	..	..	..
1920–21	1,426	..	..	..	..	..	245	..	..	..	..
1921–22	1,378	..	..	..	..	..	261	..	..	..	..
1922–23	1,510	..	..	..	..	..	273	..	..	..	..
1923–24	1,569	..	..	..	..	..	290	..	..	..	..
1924–25	1,722	..	..	..	..	..	303	..	..	..	..
1925–26	1,659	..	..	..	..	..	308	..	..	..	..
1926–27	1,729	..	..	..	..	..	328	..	..	..	..
1927–28	1,739	..	..	..	..	..	329	..	..	..	..
1928–29	1,711	..	..	..	..	..	309	..	..	..	..
1929–30	1,566	..	..	..	..	..	240	..	..	..	..
1930–31	1,288	..	..	..	..	..	166	..	..	..	..
1931–32	1,209	..	..	..	..	..	119	..	..	..	..
1932–33	1,264	..	..	..	..	..	134	..	..	..	..
1933–34	1,356	..	..	..	..	..	156	..	..	..	..
1934–35	1,422	..	..	..	..	..	203	..	..	..	..
1935–36	1,574	..	..	..	..	..	226	..	..	..	..
1936–37	1,717	..	..	..	..	..	253	..	..	..	..
1937–38	1,857	..	..	..	..	..	306	..	..	..	..
1938–39	1,847	1,860	..	..	..	..	298	(316)	..	..	..
1939–40	..	2,040	..	..	..	..	..	..	..	..	..
1940–41	..	2,174	..	..	..	..	..	..	..	..	..
1941–42	..	2,548	..	..	..	..	..	..	..	..	..
1942–43	..	2,936	..	..	..	..	..	..	..	..	..
1943–44	..	2,986	..	..	..	..	..	..	..	..	..
1944–45	..	2,906	..	..	..	..	..	..	..	..	..
1945–46	..	3,006	..	..	..	..	..	..	..	..	..
1946–47	..	3,234	..	..	..	..	..	..	..	..	..
1947–48	..	3,988	..	..	..	..	..	..	..	..	..
1948–49	..	4,524	4,324	7,261	..	..	..	792	1,350	..	..
1949–50	..	..	5,099	7,844	..	..	..	1,064	1,652	..	..
1950–51	..	..	6,773	8,304	..	..	..	1,524	2,049	..	..
1951–52	..	..	7,267	8,539	..	..	..	1,938	2,194	..	..
1952–53	..	..	8,242	8,466	..	..	..	1,937	1,983	..	..
1953–54	..	..	9,013	9,013	10,464	..	..	2,128	2,128	2,511	..
1954–55	..	..	9,603	9,493	11,082	..	..	2,353	2,294	2,698	..
1955–56	..	..	10,405	10,023	11,642	..	..	2,567	2,380	2,811	..
1956–57	..	..	11,332	10,281	11,862	..	..	2,667	2,380	2,819	..
1957–58	..	..	11,588	10,435	12,124	..	..	2,856	2,499	2,951	..
1958–59	..	..	12,448	11,370	13,019	..	..	3,022	2,614	3,085	..
1959–60	..	..	13,718	11,991	13,718	16,344	..	3,405	2,886	3,405	3,947
1960–61	..	..	14,591	..	14,155	16,899	..	3,671	..	3,569	4,160
1961–62	..	..	14,928	..	14,300	17,103	..	3,730	..	3,579	4,180
1962–63	..	..	16,089	..	15,191	18,213	..	4,020	..	3,842	4,476
1963–64	..	..	17,846	..	16,316	19,501	..	4,516	..	4,242	4,938
1964–65	..	..	19,601	..	17,523	20,848	..	5,259	..	4,796	5,573
1965–66	..	..	20,545	..	17,733	21,214	..	5,709	..	5,065	5,897
1966–67	..	..	22,571	..	18,902	22,571	..	5,997	..	5,150	5,997
1967–68	..	..	24,068	..	..	23,421	..	6,520	..	..	6,341
1968–69	..	..	27,068	..	..	25,489	..	7,252	..	..	6,806
1969–70	..	..	29,952	..	..	26,988	..	7,906	..	..	7,112
1970–71	..	..	32,923	..	..	28,164	..	8,758	..	..	7,422
1971–72	..	..	36,723	..	..	29,412	..	9,586	..	..	7,605
1972–73	..	..	41,962	..	..	30,848	..	10,058	..	..	7,501
1973–74	..	..	50,805	..	..	32,600	..	11,925	..	..	7,934
1974–75	..	..	60,149	..	..	32,803	..	14,406	..	..	7,792
1975–76	..	..	70,825	..	..	33,599	..	16,959	..	..	7,905
1976–77	..	..	81,531	..	..	34,751	..	19,282	..	..	7,995

(a) For a description of constant price estimates, *see Australian National Accounts, op. cit. pp 15 and 104.* (b) N. G. Butlin, *Australian Domestic Product, Investment and Foreign Borrowing* 1861—1938-39, Cambridge University Press, Cambridge, 1962. Gross domestic product excluding livestock accumulation approximates conceptually gross domestic product as defined in the Australian National Accounts. (c) Published by the Commonwealth Statistician. Figures prior to 1948-49 are from *National Income and Expenditure* 1955–56 and are not strictly comparable with subsequent figures because of a number of definitional changes and statistical revisions, *see* pages 18–19, 117–20, *Australian National Accounts* 1948–49 *to* 1961–62, Commonwealth Bureau of Census and Statistics. (d) *Australian National Accounts* 1974–75, Australian Bureau of Statistics, and, for the last five years, the Budget Paper No. 9, *National Income and Expenditure* 1974–75. The figure of $316m for gross fixed capital expenditure in 1938-39 is based on a reconstruction of earlier estimates, and is approximately consistent with the present Australian National Account series. (e) N. G. Butlin, *op. cit.* For a variety of reasons, Professor Butlin's gross domestic capital formation figures given here differ conceptually from those for gross fixed capital expenditure in the Australian National Accounts.

PRIVATE FINANCE

NOTE ISSUE

BANKING

Year ended 30 June—	Australian note issue (a)	Trading banks		Bank clearings (c)	Savings banks
		Advances (b)	Deposits (b)		Depositors balances(d)
	$m	$m	$m	$m	$m
1902	. .	188	186	13	62
1912	16	238	300	25	118
1922	107	364	578	65	308
1932	103	522	638	55	396
1942	205	648	965	142	549
				Debits to customers' accounts(c)	
1949	426	966	1,830	514	1,428
1950	463	1,148	2,264	655	1,524
1951	551	1,357	2,826	897	1,675
1952	605	1,656	2,564	866	1,784
1953	657	1,450	2,856	877	1,895
1954	688	1,690	3,061	1,100	2,020
1955	726	1,982	3,089	1,127	2,145
1956	745	1,945	2,992	1,123	2,282
1957	763	1,897	3,231	1,250	2,455
1958	775	2,060	3,240	1,282	2,594
1959	790	2,007	3,362	1,432	2,783
1960	843	2,211	3,611	1,737	3,045
1961	839	2,238	3,600	1,654	3,155
1962	856	2,287	3,837	1,848	3,470
1963	869	2,465	4,064	2,028	3,940
1964	870	2,610	4,649	2,318	4,476
1965	862	2,955	5,038	2,653	4,887
1966	849	3,183	5,308	2,672	5,254
1967	938	3,548	5,614	2,978	5,765
1968	1,006	4,020	6,087	3,588	6,222
1969	1,107	4,384	6,706	4,055	6,707
1970	1,216	4,903	7,099	4,891	7,105
1971	1,369	5,317	7,431	5,711	7,635
1972	1,499	5,876	8,322	6,200	8,391
1973	1,751	7,854	11,072	8,085	10,238
1974	2,112	10,120	12,714	8,988	11,196
1975	2,557	11,205	14,936	10,095	(e)12,868
1976	2,921	12,560	16,956	13,368	14,823
1977	3,291	13,985	19,096	14,879	16,365

(a) Last Wednesday in June. (b) June quarter up to and including 1942; weekly average for month of June from 1947 onwards. (c) Weekly average, June month. (d) End of June. (e) Data from June 1975 have been revised to reflect a change in accounting procedures by one bank.

LIFE INSURANCE(a)(b)

	Ordinary(c)		Industrial		Total	
	Policies	Sum assured	Policies	Sum assured	Policies	Sum assured
	'000	$m	'000	$m	'000	$m
1901	414	216	236	10	650	226
1911	484	218	467	20	951	238
1921	730	362	973	60	1,703	422
1931	871	570	1,550	134	2,421	704
1941	1,340	926	2,780	254	4,120	1,180
1948	2,071	1,669	3,643	418	5,714	2,087
1949	2,224	1,862	3,725	448	5,949	2,310
1950	2,377	2,094	3,793	477	6,170	2,571
1951	2,554	2,424	3,843	507	6,396	2,931
1952	2,731	2,757	3,873	541	6,604	3,298
1953	2,893	3,105	3,881	571	6,774	3,677
1954	3,033	3,482	3,827	594	6,860	4,076
1955	3,184	3,942	3,766	615	6,949	4,556
1956	3,319	4,447	3,702	631	7,021	5,077
1957	3,446	5,067	3,615	645	7,061	5,712
1958	3,577	5,747	3,531	657	7,108	6,404
1959	3,710	6,571	3,443	665	7,154	7,236
1960	4,110	7,690	3,340	686	7,450	8,376
1961	4,201	8,743	3,199	707	7,400	9,450
1962	4,291	9,854	3,076	743	7,366	10,597
1963	4,401	11,010	2,953	777	7,354	11,787
1964	4,539	12,481	2,851	823	7,390	13,304
1965	4,705	14,057	2,755	871	7,460	14,928
1966	4,873	15,750	2,644	918	7,517	16,668
1967	5,051	17,762	2,603	981	7,654	18,743
1968	5,251	20,357	2,561	1,041	7,812	21,397
1969(d)	5,428	23,245	2,530	1,114	7,958	24,360
1970	5,607	27,229	2,500	1,212	8,107	28,441
1971	5,873	32,420	2,471	1,329	8,344	33,749
1972	6,143	37,879	2,389	1,442	8,532	39,321
1973	5,856	44,376	2,319	1,551	8,777	45,927
1974	6,536	52,249	2,174	1,580	8,711	53,829
1975	6,588	60,896	2,030	1,602	8,618	62,498
1976	6,521	69,965	1,872	1,634	8,394	71,600

(a) Existing business in Australia. (b) Relates to companies' financial years which ended during the calendar years shown. (c) Includes superannuation business. (d) Prior to 1969 includes business in Papua New Guinea.

PUBLIC FINANCE

	COMMONWEALTH GOVERNMENT				STATE				GOVERNMENT SECURITIES ON ISSUE(*a*)				
	Consolidated revenue fund				*Consolidated revenue fund*								
Year ended 30 June—	*Revenue*	*Expenditure*	*Net loan fund expenditure (b)*	*Taxation collections*	*Revenue*	*Expenditure*	*Net loan expenditure (b)*	*Taxation collections*	*Commonwealth Government*	*State*	*Total*	*Overseas*	*In Australia*
	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m
1902 . .	23	8	..	18	56	58	19	5	..	429	429	n.a.	n.a.
1912 . .	41	29	2	32	83	82	33	11	12	557	569	388	181
1922 . .	128	128	10	99	170	175	67	36	708	1,039	1,747	823	924
1932 . .	143	143	8	109	199	242	12	65	692	1,800	2,492	1,320	1,172
1942 . .	420	420	426	362	305	299	17	115	1,340	2,038	3,378	1,312	2,066
1949 . .	1,109	1,109	—9	952	452	456	102	73	3,685	2,202	5,887	1,088	4,798
1950 . .	1,161	1,161	85	1,018	521	525	147	83	3,731	2,367	6,098	1,099	4,999
1951 . .	1,684	1,684	101	1,447	613	613	257	103	3,777	2,619	6,396	1,067	5,329
1952 . .	2,034	2,034	63	1,848	777	783	395	126	3,838	2,993	6,830	1,113	5,717
1953 . .	2,080	2,080	71	1,783	876	877	322	142	3,893	3,288	7,181	1,142	6,038
1954 . .	2,046	2,046	83	1,810	941	935	335	161	3,964	3,573	7,537	1,165	6,372
1955 . .	2,135	2,135	66	1,882	991	998	321	179	3,998	3,846	7,844	1,216	6,628
1956 . .	2,277	2,277	88	2,014	1,052	1,082	312	196	4,031	4,121	8,151	1,269	6,882
1957 . .	2,624	2,624	88	2,208	1,154	1,168	317	229	3,957	4,396	8,353	1,216	7,138
1958 . .	2,648	2,648	90	2,338	1,210	1,224	314	256	3,670	4,686	8,356	1,248	7,100
1959 . .	2,592	2,592	132	2,283	1,280	1,295	338	276	3,512	4,988	8,499	1,319	7,186
1960 . .	2,877	2,877	119	2,519	1,399	1,404	357	320	3,334	5,301	8,635	1,389	7,242
1961 . .	3,277	3,277	83	2,871	1,511	1,513	384	335	3,215	5,630	8,845	1,413	7,438
1962 . .	3,283	3,283	182	2,858	1,609	1,617	395	394	3,119	5,963	9,082	1,424	7,655
1963 . .	3,371	3,371	274	2,907	1,694	1,696	405	438	3,121	6,314	9,434	1,522	7,917
1964 . .	3,809	3,809	226	3,247	1,829	1,829	438	496	3,172	6,691	9,863	1,545	8,314
1965 . .	4,418	4,418	167	3,819	1,947	1,965	477	549	3,134	7,091	10,225	1,529	8,697
1966 . .	4,879	4,879	(*c*)260	4,221	2,094	2,119	492	591	3,145	7,495	10,639	1,505	9,138
1967 . .	5,228	5,228	(*c*)450	4,492	2,286	2,289	516	664	3,275	7,934	11,209	1,532	9,675
1968 . .	5,760	5,760	(*c*)655	4,952	2,463	2,468	540	753	3,600	8,317	11,917	1,558	10,358
1969 . .	6,086	6,086	(*c*)236	5,528	2,689	2,700	574	860	3,682	8,831	12,512	1,698	10,813
1970 . .	6,979	6,979	(*c*)446	6,380	3,010	3,028	615	960	3,885	9,320	13,205	1,580	11,625
1971 . .	7,838	7,838	(*c*)439	7,183	3 457	3,483	628	1,008	3,801	9,691	13,492	1,546	11,946
1972 . .	8,688	8,688	(*c*)218	7,939	4,035	4,050	896	1,414	3,808	10,227	14,035	1,442	12,592
1973 . .	9,278	9,278	(*c*)281	8,470	4,675	4,704	973	1,779	3,963	10,781	14,744	1,265	13,479
1974 . .	11,976	11,976	(*c*)239	10,917	5,481	5,514	868	2,205	4,088	11,219	15,306	1,032	14,274
1975 . .	15,391	15,391	(*c*)1,785	14,211	7,109	7,187	1,097	2,790	5,956	11,814	17,770	1,182	16,587
1976 . .	19,713	19,713	2,277	16,937	8,724	8,706	1,370	3,467	9,010	11,328	20,338	1,325	19,013
1977 . .	21,435	21,435	9,974	19,770	10,258	10,255	1,468	3,889	11,192	12,099	23,290	1,871	21,420

(*a*) At 30 June. Expressed in Australian currency equivalents at ruling rates of exchange. (*b*) Loan expenditure on works and services
(*c*) Includes expenditure financed under the United States Defence Credits Arrangements.

SOCIAL

PENSIONS, BENEFITS, ETC.

	Age and invalid pensions (including Wives' Allowances Pensions)			*Family allowances(a)*		*Widow's pensions*		*Unemployment benefits*	
Year ended 30 June—	*Pensioners (b)*	*No. of wives (c)*	*Amount paid (d)*	*No. of children (b)*	*Allowance paid*	*Pensioners (b)*	*Amount paid (d)*	*No. on benefit—weekly average*	*Amount paid (d)*
	'000	'000	$m	'000	$m	'000	$m	'000	$m
1902 . .	..	..	..	..	..	..	..	..	..
1912 . .	90	..	4.3	..	..	..	..	..	..
1922 . .	147	..	10.8	..	..	..	..	..	..
1932 . .	261	..	22.3	..	..	..	..	..	..
1942 . .	341	..	38.5	910	22.6	..	..	..	..
1949 . .	403	12	83.4	1,105	48.6	43	8.8	2	(*f*)
1950 . .	414	13	89.1	1,836	(*e*)60.7	43	8.8	13	2.5
1951 . .	417	12	99.0	2,389	87.2	42	9.7	1	(*f*)
1952 . .	426	11	119.6	2,518	93.2	41	11.2	2	(*f*)
1953 . .	451	12	144.8	2,624	(*e*)106.5	41	12.7	30	9.1
1954 . .	478	12	162.6	2,717	101.5	41	13.2	14	5.0
1955 . .	510	13	176.0	2,789	105.1	42	13.7	4	1.4
1956 . .	535	13	203.3	2,876	(*e*)120.8	43	15.4	4	1.4
1957 . .	554	13	218.4	2,978	114.1	45	17.7	12	4.2
1958 . .	574	12	243.2	3,074	117.5	47	19.7	24	9.8
1959 . .	598	12	259.1	3,172	(*e*)135.1	50	21.6	28	11.9
1960 . .	619	13	294.0	3,252	125.1	52	24.3	21	9.0
1961 . .	651	14	315.9	3,340	(*e*)148.6	55	26.9	22	8.9
1962 . .	691	14	360.5	3,420	132.8	57	30.2	53	25.3
1963 . .	711	15	375.5	3,458	135.4	58	31.4	40	21.3
1964 . .	725	16	399.9	3,631	(*e*)168.8	62	41.6	26	13.5
1965 . .	736	16	426.6	3,711	172.8	65	47.0	14	6.8
1966 . .	744	17	442.4	3,763	176.4	69	50.0	15	7.8
1967 . .	764	19	481.8	3,835	(*e*)199.3	73	56.4	21	11.2
1968 . .	797	19	514.0	3,891	187.9	75	61.1	21	11.2
1969 . .	827	20	558.6	3,996	193.3	78	69.1	18	9.3
1970 . .	913	23	642.0	4,079	(*e*)220.1	87	81.8	13	8.9
1971 . .	942	23	702.3	4,156	198.5	90	90.5	15	10.8
1972 . .	972	24	818.5	4,235	216.6	93	104.6	29	26.0
1973 . .	1,081	41	1,072.4	4,239	(*e*)253.9	106	140.5	40	46.6
1974 . .	1,184	47	1,372.4	4,261	225.4	115	181.0	34	58.2
1975 . .	1,266	51	1,918.9	4,284	224.9	121	241.4	117	251.7
1976 . .	1,342	59	2,536.4	4,293	(*e*)265.5	129	325.3	192	513.9
1977 . .	1,408	..	2,994.6	4,302	1,023.3	139	370.2	216	618.1

(*a*) Previously child and student endowment. (*b*) At 30 June. (*c*) Wives' allowance commenced on 8 July 1943 and was replaced by wives' pension on 5 October 1972. (*d*) Includes expenditure on additional pension benefit for children. (*e*) Five 12-weekly payments made during the year instead of the normal four. (*f*) Less than $0.05 million.

SOCIAL—*continued*

PENSIONS, BENEFIT, etc.—*continued*

Year ended 30 June—	Hospital and nursing home benefits—amount paid	Medical benefits—amount paid	Pharmaceutical benefits—amount paid	Total Australian Government expenditure on pensions, benefits, etc.(a)	War pensions		Service pensions	
					No.(b)	Amount paid	No.(b)	Amount paid
	$m	$m	$m	$m	'000	$m	'000	$m
1902	..	..	..	..	..	..	..	..
1912	..	..	..	4.3	..	..	..	..
1922	..	..	..	12.1	225	14.1	..	..
1932	..	..	..	23.0	274	14.9	..	..
1942	..	..	..	61.8	220	15.0	14	1.2
1949	11.8	..	..	161.6	440	37.9	16	2.7
1950	12.6	..	0.1	185.6	471	42.1	16	2.9
1951	13.1	..	5.9	230.0	503	53.1	17	3.0
1952	13.4	2.1	15.4	275.2	525	66.7	17	3.6
1953	14.4	3.5	14.4	331.0	544	72.6	19	4.5
1954	16.7	7.2	18.5	353.1	564	78.1	21	5.4
1955	18.6	13.5	21.5	378.6	584	87.8	22	6.0
1956	19.1	14.6	23.8	429.7	600	91.3	35	8.3
1957	19.6	18.3	23.4	447.8	614	95.6	39	9.8
1958	21.6	20.6	30.1	495.0	629	106.6	42	11.3
1959	29.6	23.2	41.9	556.5	643	109.0	44	12.4
1960	37.2	26.8	48.7	598.7	655	117.5	46	13.5
1961	41.3	28.4	55.8	661.2	662	132.6	50	15.6
1962	44.4	30.6	70.4	730.4	671	135.1	58	19.4
1963	47.3	32.6	76.9	758.6	671	140.7	62	21.7
1964	56.2	34.4	78.8	832.7	669	154.5	65	24.2
1965	58.8	44.6	82.2	890.4	660	153.5	65	25.5
1966	60.7	54.6	91.8	941.6	647	170.5	66	28.2
1967	67.4	58.2	101.3	1,031.1	632	161.7	67	29.1
1968	74.8	62.5	105.1	1,075.0	617	164.4	69	31.8
1969	85.9	66.5	118.4	1,162.3	601	182.8	67	34.1
1970	111.4	76.1	136.7	1,341.8	585	183.5	74	39.9
1971	122.8	115.5	160.3	1,477.2	570	191.4	77	43.7
1972	162.0	160.4	173.3	1,752.3	553	211.1	78	49.2
1973	198.9	191.1	177.6	2,197.4	546	225.0	96	72.3
1974	226.5	198.9	218.3	2,666.2	532	252.2	109	103.6
1975	292.8	243.6	262.3	3,691.0	514	314.1	122	155.2
1976	254.1	86.1	283.8	4,658.4	499	340.1	142	218.9
1977	195.4	1.7	234.9	5 925.4	485	371.5	164	283.3

(*a*) National Welfare Fund items only, including expenditure for all years on pensions, benefits, etc., which subsequently became payable from the National Welfare Fund. In addition to the items shown in the preceding columns, the tables include expenditure on—the rehabilitation service; milk for school children; tuberculosis campaign; sickness, special and funeral benefits and some miscellaneous welfare and health services. Excludes war and service pensions, telephone rental concessions for pensioners and some minor welfare and health services. (*b*) At 30 June.

EDUCATION

POLICE AND PRISONS

Year(a)	Schools				Universities		Police	Prisons	Convicted prisoners
	Government		Non-government						
	Schools	Pupils	Schools	Pupils	Number	Students			
	'000	'000	'000	'000		'000	'000	No.	'000
1902	7.2	637	2.4	144	4	1.9	5.9	n.a.	4.2
1912	8.4	663	1.9	164	6	3.8	6.6	101	3.4
1922	9.6	837	1.7	202	6	7.8	7.0	92	3.0
1932	10.2	934	1.8	221	6	9.9	8.6	85	4.1
1942	9.0	868	1.8	250	6	10.6	9.7	71	3.5
1949	7.9	971	1.8	293	8	31.1	11.1	71	3.8
1950	7.8	1,027	1.9	310	8	30.0	11.5	70	4.0
1951	7.6	1,078	1.9	326	8	31.1	11.9	70	4.2
1952	7.6	1,145	1.9	348	8	29.1	12.6	69	4.8
1953	7.6	1,206	2.0	366	8	28.3	12.7	70	4.8
1954	7.6	1,275	2.0	388	9	28.9	12.6	71	4.8
1955	7.6	1,337	2.1	410	9	30.3	12.9	72	5.1
1956	7.7	1,357	2.1	432	9	34.0	13.5	73	6.0
1957	7.7	1,427	2.0	453	9	36.6	14.1	73	6.4
1958	7.8	1,498	2.0	474	10	41.5	14.5	73	6.6
1959	7.8	1,560	2.1	492	10	47.2	14.9	74	6.6
1960	7.9	1,613	2.1	511	10	53.4	15.3	77	6.8
1961	7.9	1,662	2.1	527	10	57.7	15.9	75	7.2
1962	7.9	1,711	2.2	540	10	63.3	16.4	74	7.4
1963	7.9	1,754	2.2	553	10	69.1	16.7	73	7.7
1964	7.8	1,799	2.2	565	13	76.2	17.2	74	7.7
1965	7.8	1,855	2.2	580	13	83.3	17.6	74	7.7
1966	7.8	1,919	2.2	583	14	91.3	18.4	76	8.1
1967	7.7	1,991	2.2	595	14	95.4	19.0	75	8.7
1968	7.6	2,055	2.2	601	14	101.5	19.7	79	8.8
1969	7.5	2,114	2.2	603	14	109.7	20.1	74	9.2
1970	7.5	2,160	2.2	608	17	116.8	20.3	77	9.3
1971	7.4	2,197	2.2	611	17	123.8	21.0	79	9.5
1972	7.4	2,229	2.2	612	17	128.7	22.2	80	9.8
1973	7.3	2,241	2.2	613	17	133.1	23.1	85	9.1
1974	7.3	2,258	2.2	618	17	142.9	24.4	90	7.6
1975	7.3	2,298	2.1	621	18	148.3	n.a.	n.a.	n.a.
1976	7.3	2,335	2.1	625	18	154.0	n.a.	n.a.	n.a.

(*a*) Years ended at varying dates for education statistics. Years ended 30 June for Police and Prisons.

DIARY OF PRINCIPAL ECONOMIC EVENTS, JULY 1976 TO DECEMBER 1977

July 1976

1 As a result of the new freight equalisation scheme, ANL freight rates between the mainland and Tasmania increased by about 24 per cent on south-bound, non-bulk cargoes, and by about 128 per cent on north-bound, non-bulk cargoes. The scheme also includes a subsidy on goods moving by sea from Tasmania to the mainland for sale or use on the mainland, and on south-bound shipment of producers' materials and equipment.

Australia adopted the Brussels Definition of valuing imports for customs duty purposes. The estimated effect of the new definition of value is to reduce the value of total imports so estimated for July by about 2 per cent below their value using the old definition.

New personal income tax scales, reflecting the implementation of 'tax-indexation' and a new system of family allowances for children, came into effect.

3 The International Monetary Fund announced the approval of an Australian drawing equivalent totalling $309 million under the Compensating Financing Facility. Charges on the drawing range from 4 per cent in the first year to 6 per cent in the fifth year.

7 The Commonwealth Government announced that the floor price of wool would be increased from 206 cents a kilo on the 'whole clip average' to 234 cents a kilo for the next two selling seasons. The effect on 21 micron wool, clean, was a 10 per cent increase to 275 cents per kilo, which was below the end of season (June 1976) selling price of 287 cents per kilo.

8 The maximum interest rate payable on local and semi-government loan raisings for periods of fifteen years and longer was raised to 10.6 per cent on public issues and 10.7 per cent on private issues, representing an increase of 0.2 percentage points.

9 Series 3 Australian Savings Bonds were replaced by Series 4 Bonds, with the yield to maturity remaining at 9.2 per cent. Net raisings by Series 3 Bonds were $59.2 million.

12 Widespread work stoppages occurred in response to a call for a national strike by the ACTU over proposed changes to Medibank. Approximately 1.5 million working days were lost in July due to stoppages in support of the 'old' Medibank Scheme.

14 The Treasurer confirmed that the States would receive the equivalent of 33.6 per cent of personal income tax collections in 1976–77.

15 A Commonwealth Government cash and conversion offer opened, offering securities with yields ranging from 8.5 per cent to 10.2 per cent. The cash offer raised $725.5 million, the conversion offer $361.9 million.

21 The Commonwealth Government announced that it would underwrite the equalisation values for butter and cheese for the six months to 31 December 1976.

25 Papua New Guinea revalued the Kina by 5 per cent against the Australian dollar.

The Commonwealth Government announced that the trading banks have agreed to provide up to $100 million as loans to the Export Finance and Insurance Corporation (which, inter alia, provides loans on internationally-competitive terms in support of Australian capital goods exporters) to cover the new export financing business, as well as to take over the financing of existing export tenders.

August 1976

2 The Commonwealth Government announced that all special tax exemptions applying to the gold mining industry would be removed over the next five years.

3 The sale to the Soviet Union of 12,000 tonnes of boneless beef, worth approximately $6.5 million, was announced by the Federal Government.

10 The New South Wales Premier announced measures aimed at reducing unemployment in that State, with particular emphasis being placed on the building and construction sector. Offers to build essential public works were accepted, providing payment could be deferred until at least next financial year. On 21 September the N.S.W. Government announced that about $15 million would be spent on a deferred payment basis.

12 The Arbitration Commission granted a $2.50 a week increase in Federal award wages and salaries up to and including $166 a week. Award wages and salaries above $166 a week were increased by 1.5 per cent. The increases were to take effect from the beginning of the first pay period commencing on or after 15 August.

13 The Commonwealth Government announced continuation of the shipbuilding subsidy arrangements introduced in December 1973 by the previous Government. It also stated that the proposed building of a graving dock and other ship repair facilities at Newcastle would not take place.

15 The Premier of Victoria confirmed that the Nissan Motor Company would spend $40 million to establish a four-cylinder engine assembly plant at Clayton, Victoria.

16 The price of refined sugar to wholesalers and manufacturers was increased by 12 per cent.

17 The Treasurer presented the 1976–77 Commonwealth Budget.

The main features were: an increase in outlays of 11 per cent (to $24,324 million), compared with an increase of 23 per cent in 1975-76; an increase in receipts of 19 per cent (to $21,713 million), compared with an increase of 20 per cent in 1975–76; a deficit of $2,608 million, $977 million less than the 1975–76 Budget deficit (the domestic deficit was expected to be $1,879 million); introduction of a system of trading stock valuation adjustments; exemption of new oil discoveries from the $2 a barrel crude oil levy; new taxation concessions for the mining and petroleum industries, including the allowance of petroleum exploration expenditure and particular items of capital expenditure as a deduction against income.

27 The yield to maturity on Treasury Notes was increased by about 0.5 percentage points, the yield on 13-week notes increasing to 7.477 per cent, and on 26-week notes to 7.727 per cent.

September 1976

1 The Tasmanian Premier introduced the 1976–77 State Budget, providing for a $0.5 million deficit (following a $4.1 million surplus in 1975–76).

7 The South Australian Premier presented the 1976–77 State Budget, providing for a balanced budget (following a $2.3 million surplus in 1975–76).

8 The Commonwealth Government announced a 7.5 per cent increase in doctors' fees effective from 1 January 1977.

The Victorian Premier introduced the 1976–77 State Budget, providing for a $0.5 million deficit (following a $1.5 million surplus in 1975-76).

10 The Commonwealth Government announced the continuation and extention of the Dairy Adjustment Programme, and the extension of the Apple and Pear Stabilisation Scheme to cover the 1977 export crop.

16 Queensland building society legislation was amended to remove Government controls on maximum interest rates on loans and term deposits. The maximum interest rate on deposits at call was reduced by 0.5 percentage points to 9.0 per cent.

20 Negotiations were completed for a $US300 million (about $A241 million) bond issue in Europe by the Commonwealth Government.

22 The Commonwealth Government announced the introduction of the Special Youth Employment Training Programme to help unemployed school leavers who had left school within the previous twelve months and had not been able to find stable employment. Employers would be paid a subsidy of $58 a week by the Government for providing six months on-the-job training. On 21 November, the scheme was extended to cover school leavers who had left school more than twelve months ago.

Hamersley Holdings negotiated a contract to supply an additional 6 million tonnes of iron ore per year to Japan, involving an additional investment of about $300 million.

Cliffs Robe River obtained a contract to supply an additional 3 million tonnes of iron ore per year to Japan, involving an additional investment of about $80 million.

24 The yield to maturity on Treasury Notes was increased by about 0.5 percentage points, the yield on 13-week notes increasing to 7.977 per cent and on 26-week notes to 8.226 per cent.

29 The New South Wales Treasurer introduced the 1976–77 State Budget, providing for a $3.1 million surplus (following a $0.6 million deficit in 1975–76).

30 The Queensland Treasurer presented the 1976–77 State Budget, providing for a $0.5 million deficit (following a $0.7 million deficit in 1975–76).

October 1976

1 The Relocation Assistance Scheme, which provides for grants to assist in the relocation of unemployed persons and their families to areas where suitable employment or training is available, came into effect.

The revised Medibank health insurance scheme came into effect.

5 The Western Australian Premier introduced the 1976–77 State Budget, providing for a balanced budget (following a $0.6 million surplus in 1975–76).

8 Series 4 Australian Savings Bonds were replaced by Series 5 Bonds, increasing the interest rate by 0.3 percentage points to 9.5 per cent. Net raisings by Series 4 Bonds were $16.0 million.

12 The Prices Justification Tribunal (PJT) approved a weighted average price increase of 4.92 per cent in Broken Hill Pty Ltd (BHP) steel prices.

14 A Commonwealth Government cash and conversion loan opened, offering securities with interest rates ranging from 8.5 per cent to 10.2 per cent. The cash offer raised $229 million, the conversion offer $186 million.

20 The Commonwealth Government announced that the Canadian Government had imposed a quota of 8.2 million pounds on beef imported from Australia for the remainder of 1976, and that beef already in shipment would exceed that quota.

21 The Commonwealth Government announced the introduction of the Community Youth Support Scheme. Under the Scheme the Government will provide financial assistance to community organisations for supportive programmes and services to the young unemployed aimed at improving their ability to find employment.

November 1976

1 The Prime Minister confirmed the Government's policy to preserve 80 per cent of the Australian car market for local producers.

7 The Treasurer and the Governor of the Reserve Bank announced: an increase of about 0.5 percentage points in yields on Treasury Notes, the yield on 13-week notes increasing to 8.478 per cent and on 26-week notes to 8.727 per cent; an increase in the Statutory Reserve Deposit (SRD) ratio from 5 per cent to 6 per cent, effective from 16 November; an increase in the interest rate payable to the trading banks by the Reserve Bank on SRD accounts from 0.75 per cent to 2.5 per cent per annum, effective from 10 November; a request to trading banks to moderate the rate of growth of bank lending (savings banks and building societies were also made aware of the need to avoid any upsurge in their lending).

11 The Treasurer announced increases in the maximum interest rates payable on local and semi-government authority loan raisings of 0.3 percentage points to 10.0 per cent for public securities in the four to six-year range and an increase of 0.1 percentage points to 10.3 per cent for public securities in the seven to nine-year range. Interest rates on private issues were 0.1 percentage points higher in each class.

The Federal Government approved the exporting of uranium to meet contracts entered into before 2 December 1972.

12 Series 5 Australian Savings Bonds were replaced by Series 6 Bonds, increasing the interest rate 0.3 percentage points to 9.8 per cent. Net raisings by Series 5 Bonds were $15.9 million.

17 Negotiations were completed for a Commonwealth Government bond issue of $US200 million in the United States of America.

22 The Arbitration Commission granted a 2.2 per cent increase in Federal awards, effective from the first pay period commencing on or after 22 November.

28 The Treasurer announced that the Australian dollar would be devalued by 17.5 per cent on 29 November, and that a flexibly administered exchange rate system would be adopted. After a number of subsequent revaluations, the effective devaluation was reduced to 12.45 per cent by the end of December.

29 The yield to maturity on Treasury Notes was increased by about 0.5 percentage points, the yield on 13-week notes increasing to 8.981 per cent, and on 26-week notes to 9.230 per cent.

30 The Commonwealth Government announced that the floor price of wool would be raised from 234 cents to 284 cents per kilo whole clip average on a clean basis, with the Australian Wool Corporation being authorised to maintain this price from the date of announcement.

The home consumption price for wheat was increased by $6.08 to $105.40 per tonne.

December 1976

2 The Australian Wheat Board announced the sale to Egypt of 1.25 million tonnes of wheat worth about $A120 million on eighteen months credit terms for shipment in 1977.

3 Series 6 Australian Savings Bonds were replaced by Series 7 Bonds, increasing the interest rate 0.2 percentage points to 10.0 per cent. Net raisings by Series 6 Bonds were $13.6 million.

7 The Commonwealth Government announced the sale of 25,500 tonnes of boneless beef and 4,500 tonnes of bone-in carcass mutton to the U.S.S.R., bringing the total value of recent meat sales to the U.S.S.R. to $US68 million.

The Commonwealth Government announced selective tariff reductions on a wide range of products including processed food, chemicals and certain types of capital equipment. Quotas were removed on various imports including motor vehicles and some electrical goods.

15 Interest rates payable on semi-government borrowings were increased by 0.3 percentage points for securities with fifteen years and over maturity (the new public issue rate being 10.9 per cent) and 0.5 percentage points for 4 to 6 years securities (10.5 per cent). The private issue rates were maintained at a level of 0.1 percentage points higher than public issue rates for the above securities.

It was announced that Australia's quota for meat imports to the United States in 1977 was 296,000 tonnes, 9,000 tonnes higher than in 1976.

30 The SRD ratio was increased from 6 per cent to 7 per cent.

31 The yield on 13-week Treasury Notes was reduced by about 0.13 percentage points to 8.855 per cent. The yield on 26-week Treasury Notes was unchanged at 9.230 per cent.

January 1977

7 The yield on 13-week Treasury Notes was reduced by 0.126 percentage points to 8.729 per cent. The yield on 26-week Treasury Notes remained unchanged at 9.230 per cent.

10 Three hundred employees at the Newcastle (N.S.W.) State dockyard were retrenched.

14 The Commonwealth Government announced that a general 10 per cent currency surcharge would apply on most ticket sales by international airlines made in Australian currency for carriage after 1 February.

The Treasurer announced that company tax payable on 1976–77 incomes would be collected by quarterly instalments during 1977–78.

16 The Commonwealth Government announced two new youth employment schemes: the Commonwealth Rebate for Apprentice Full-Time Training scheme would provide tax free rebates to employers in respect of first and second year apprentices released for full time training, and a living away from home allowance where necessary; and the second scheme would provide $5.4 million to assist young people to undertake pre-apprenticeship courses and to increase the productivity of existing apprentices.

17 Measures to restrict capital inflow were implemented, including: an extension of the existing embargo on overseas borrowings of less than six months to apply to borrowings of less than two years; the reintroduction of a modified Variable Deposit Requirement scheme (borrowings for capital investment in mining and manufacturing industries were exempt); and a tightening of controls applying to the timing of payments and or receipts from certain international transactions.

18 The SRD ratio was increased from 7 per cent to 8 per cent.

21 Treasury Note yields were reduced by just over 0.1-percentage points, to 8.604 per cent on 13-week notes, and to 9.121 per cent on 26-week notes.

25 The SRD ratio was increased by 1 percentage point to 9 per cent.

27 The PJT approved a 9 per cent price increase for products of aluminium producers.

February 1977

1 The Papua New Guinea/Australia Trade and Commercial Relations Agreement came into force.

10 A Commonwealth Government cash and conversion loan opened, with securities offered carrying interest rates ranging from 9.8 per cent to 10.5 per cent (the 9.8 per cent security was issued at 99.9 per cent, the other at par). The cash offer raised $173.0 million, the conversion offer $369.9 million.

11 Chrysler stood down 2,000 workers in Adelaide because of an industrial dispute.

The Commonwealth Government announced that the Australian Shipping Commission would sign contracts to have two 15,000 tonne bulk carriers built in Japan.

17 The Treasurer announced an increase of $US346 million in Australia's subscription to the capital resources of the Asian Development Bank. $US34.6 million would be paid in, and the balance would remain on call.

18 The Australian dollar was revalued by 0.29 per cent against the trade weighted average of currencies.

21 The SRD ratio was increased from 9 per cent to 10 per cent.

March 1977

1 The Commonwealth Government announced a number of initiatives affecting the clothing and textile industries, such as reducing the tariff for woven shirts (clothing) and acrylic apparel yarns; introducing tariff quotas on towelling and knitted man-made fibre products; and increasing the duty on above-quota imports for several products (e.g. boys' woven shirts). These changes were to be in effect until 1 March 1978. On 22 November there was an extension of the coverage of import quotas, stricter quotas on some items, new rates of duty on some products and an extension of bounties on some textile products.

2 BHP announced that it had completed arrangements to borrow $US40 million from a group of American banks.

3 Prices for Ford passenger vehicles were increased by an average of 3.4 per cent.

8 The Australian Wheat Board announced the sale to China of 2 million tonnes of wheat worth about $200 million for shipment between June 1977 and January 1978.

10 The Toyota Motor Company announced plans to build an engine-manufacturing plant in Melbourne. The plant would cost about $40 million, and would be capable of producing about 3,000 engines per month.

15 The Commonwealth Government announced that the floor price for wool would be maintained at 284 cents per kilo clean whole clip average for the remainder of the 1976–77 selling season, and at not less than that level for the 1977–78 selling season.

17 The N.S.W. Premier announced a $30 million public works program designed to relieve unemployment in the State. About 2,500 jobs were expected to be created directly.

18 The Moomba-Sydney natural gas pipeline was opened.

21 The Bank of New South Wales announced that it would impose a fee of 0.5 per cent on approved overdraft limits above $100,000, in lieu of the 1.0 per cent fee previously charged on unused overdrafts.

Two thousand railways employees in Melbourne were stood down as a result of a roster clerks dispute.

22 Woodside-Burmah announced that the North Rankine No. 5 well off Port Hedland (W.A.) had produced gas at a rate of 59.5 million cubic feet per day from a depth of just over 3,000 metres.

31 The Arbitration Commission granted a $5.70 a week increase in Federal award wages from the first pay period beginning on or after 30 March.

April 1977

1 It was announced that ALCAN Australia Ltd planned a $70 million expansion program over the next four years, including expansion of its smelter at Kurri Kurri, near Newcastle (N.S.W.).

7 An agreement reached between Japanese steel mills and Newcastle coal exporters allowed a 5 per cent coal price increase for the 1977–78 and 1978–79 financial years.

13 At a Premiers Conference, the heads of Government called for a three months national freeze on prices and wages, to be effective immediately. The attempt to halt price increases was subsequently abandoned.

18 It was announced that ICI Australia Ltd, would build a $60 million poly-propylene plant in Sydney.

21 Broken Hill Associated Smelters Ltd closed down the main part of its Port Pirie (S.A.) smelter because of an industrial dispute.

27 Victorian oil tanker drivers and aircraft refuellers ended a thirteen-day strike.

May 1977

5 The Australian Society of Accountants and Institute of Chartered Accountants deferred the target date for the implementation of current cost accounting until accounting periods beginning on or after 1 July 1979.

The Treasurer announced that approved borrowings for certain categories of capital investment in the mining and manufacturing industries would also be exempted from the Variable Deposit Requirement (VDR) in those cases where the funds were borrowed overseas by an Australian financial intermediary and subsequently directed to the abovementioned exempt areas of capital investment.

6 Series 7 Australian Savings Bonds were replaced by Series 8 Bonds, with the same interest rate of 10 per cent. Net raisings by Series 7 Bonds were $203 million.

Air traffic controllers began a strike, lasting one week, which affected domestic and international flights.

11 The Commonwealth Government announced that an Australian Meat and Livestock Corporation would be established to replace the Australian Meat Board.

12 A Commonwealth cash and conversion offer opened, with securities offered carrying interest rates of 9.8 per cent, 10.2 per cent and 10.4 per cent. The cash loan raised $452 million, the conversion offer $266 million.

18 The Commonwealth Government announced that $55 million will be provided from Commonwealth and State resources to fund assistance approved under the Rural Adjustment Scheme in 1977–78. The Scheme, which replaced the Rural Reconstruction Scheme on 1 January this year, incorporates most forms of assistance previously available under that Scheme, the Dairy Adjustment Program and the Beef Carry-On Loan Scheme, as well as providing household support.

24 In the National Wage Case decision, the Arbitration Commission increased Federal Award wages up to $200 a week by 1.9 per cent and wages above $200 a week by $3.80, effective from the first pay period beginning on or after 24 May.

The White paper on manufacturing industry was tabled in Parliament.

25 The Commonwealth Government announced that the tax indexation factor to be applied on 1 July would be reduced by the estimated effect of the Medibank Levy and devaluation on the CPI.

26 The Ford Motor Company announced a planned 10 per cent reduction in production. GMH announced that it hoped to avoid 600 retrenchments by relocating workers and through early retirements and workers taking long-service leave.

The Government reduced from 50 per cent to 45 per cent the proportion of depositors' balances which Savings Banks were required to hold in prescribed liquid assets and public sector securities.

June 1977

1 The PJT approved petrol price rises of about 2.5 cents per gallon. N.S.W. petrol prices were frozen by the State Government on 3 June.

3 Prices of Ford vehicles were increased by a weighted average of 2.4 per cent following PJT approval. A similar increase in Chrysler vehicles followed.

14 The Commonwealth Government announced that export incentives would be increased to the levels existing before May 1976.

15 The domestic wholesale price of sugar was increased by 8.4 per cent.

Savings bank regulations were amended to allow saving banks to lend to authorised dealers in the short-term money market and to make loans to the Australian Banks' Export Re-Finance Corporation.

16 Oil refinery workers were granted a $26 a week pay increase under the 'anomalies' provision in the wage indexation guidelines.

20 The SRD ratio was reduced by 1 percentage point to 9 per cent.

The PJT approved a 5 per cent increase in BHP's steel prices.

23 The gas price received by producers Santos Ltd and Dehli International Oil Corporation from the Pipeline Authority of South Australia was increased from 30 cents per million BTU to 42.5 cents per million BTU.

24 Ansett pilots went on strike in support of a wage indexation 'catch up' claim. The pilots struck at midnight on Thursday and returned to work on the following Saturday.

27 R. W. Miller Holdings Ltd announced details of a contract worth $15 million a year to supply steaming coal to Japan. Two new coal deposits in central N.S.W. would be developed.

The N.S.W. Government announced the provision of a further $20 million for low cost housing.

It was announced that about 2,000 retailers in South Australia would impose a price freeze on groceries (excluding meat, fruit and vegetables) for the month of July.

28 The Arbitration Commission refused to incorporate the last wage indexation increase in the builders' labourers' award because of their current industrial campaign.

29 Following a Reserve Bank announcement, savings banks and building societies were permitted to increase the rate of lending to new home buyers.

July 1977

1 Treasury Note yields were reduced from 8.604 per cent to 8.520 per cent for 13-week notes, and from 9.121 per cent to 8.989 per cent for 26-week notes.

Domestic air fares increased 4 per cent. Air cargo rates increased by the same amount on 8 July.

The Commonwealth Government announced that the average wool floor price would be maintained at 284 cents per kilo for the 1977–78 season.

The SRD ratio was reduced by 1 percentage point to 8.0 per cent.

2 The Australian Wheat Board made a sale of 3 million tonnes of wheat to China worth about $280 million to be shipped between August 1977 and August 1978.

7 Controls on overseas borrowings which had operated since 17 January 1977 were amended.

The Variable Deposit Requirement on borrowings of two years or more was suspended, and the embargo on overseas borrowings was limited to apply only to borrowings for less than 6 months.

9 The Victorian State Electricity Commission maintenance workers went on strike; 150,000 workers were stood down and 2.1 million working days were lost as a result of the strike which ended on 26 October 1977.

12 The Commonwealth Government announced that motor vehicle imports would be limited to 45,000 in the second half of 1977.

15 A Commonwealth cash and conversion loan opened, offering securities at par with yields of 9.7 per cent, 10.2 per cent and 10.4 per cent. The cash loan raised $610 million, the conversion offer $574 million.

17 The Prime Minister announced the establishment of a new Department of Special Trade Negotiations with the European Economic Community.

27 The Australian Manufacturing Council held its first meeting in Canberra.

29 BHP announced that it planned to proceed with a $300 million development of the Gregory coal deposit in central Queensland.

August 1977

2 The PJT approved a 0.99 per cent increase in the recommended retail price of GMH vehicles.

The Australian Wheat Board announced the sale to the Soviet Union of 450,000 tonnes of wheat worth about $45 million, to be shipped between January 1978 and November 1978.

GMH stood down 500 workers at its Elizabeth (S.A.) plant on 2 August and 1,000 workers at its plant in Dandenong (Vic.) on 4 August following a strike by fifty die-setters. The workers were subsequently reinstated after the die-setters resumed work on 5 August.

3 Alcoa of Australia Ltd announced price increases for aluminium ingots and semi-fabricated products of between 5.9 per cent and 6.25 per cent.

The Australian dollar was devalued by 1.5 per cent.

5 BHP contracted to sell Bowen Basin (Queensland) coking coal to Japan. The contract is worth $1,400 million over eighteen years from April 1980.

8 The Commonwealth Government announced that New Zealand products would no longer receive special exemption from Australian tariffs levied on other foreign goods.

12 The Commonwealth Government revalued its official gold reserves from the official price of $37 per fine ounce to the average London price of $128 per fine ounce, increasing the value of Australia's foreign reserves by $685 million.

16 The Treasurer introduced the Commonwealth Government Budget into Parliament. The main features were: personal income tax scheme would be restructured; company tax rates would be increased 3.5 percentage points to 46 per cent; the price of locally-produced crude oil would gradually be moved towards world parity; total outlays would increase by 10.5 per cent to $26,656 million; total receipts would increase by 14.3 per cent to $24,439 million; the deficit would be reduced by $523 million to $2,217 million; and the domestic deficit would be $650 million less than 1976–77 at $1,347 million.

19 Postal workers at the Redfern Mail Exchange returned to work ending a dispute which had disrupted mail services for two weeks.

22 The Arbitration Commission granted a 2 per cent wage increase in all Federal awards, effective from the first pay period beginning on or after August 22.

24 The Commonwealth Government announced the conditions under which development of the North-West shelf gas deposits could proceed. The current estimated capital cost of the project is $2,500 million.

GMH and Chrysler announced that they would review their spare parts pricing policy following a PJT recommendation.

25 The Commonwealth Government announced that it approved of the mining and exporting of uranium oxide, and detailed in Parliament the conditions which would be imposed.

30 The New South Wales Premier announced a joint venture involving the Electricity Commission of New South Wales and the Taipeigo Coalmining Company to develop a new steaming-coal mine near Lithgow.

September 1977

1 The Tasmanian Treasurer introduced the 1977 78 State Budget, providing for a $2.9 million deficit (following a $1.6 million surplus in 1976–77).

5 The Acting Treasurer announced completion of negotiations for a $US250 million Eurodollar bond issue, at interest rates of 7.5 per cent for a 7 year tranch and 8.25 per cent for fifteen year bonds.

6 The SRD ratio was reduced from 8.0 per cent to 6.5 per cent.

7 The Newcastle State Dockyard announced that between 500 and 520 workers would be retrenched at the end of the month.

The Victorian Treasurer introduced the 1977–78 State Budget, providing for a $0.5 million deficit (following a $9.1 million surplus in 1976–77).

12 The Commonwealth Government announced a new tax averaging scheme for farm producers worth about $100 million in a full year.

The PJT approved a 6.7 cents a gallon increase in the wholesale price of petrol.

15 Eight hundred striking lift maintenance workers returned to work after a 4 week stoppage.

17 The Western Australian Treasurer introduced the 1977–78 State Budget, providing for a balanced budget (following a $3.4 million surplus in 1976–77).

22 The Queensland Treasurer introduced the 1977–78 State Budget, providing for a $0.4 million surplus (following a $1.1 million deficit in 1976–77).

The Commonwealth Government announced assistance to the beef industry worth $20 million in the current financial year.

27 The Commonwealth Government announced further borrowings of $850 million in European money markets, bringing the recent overseas borrowing program to $1,700 million.

28 The Queensland Permanent Building Society failed to open for business following a sustained run on deposits. On 14 October, the Queensland Government announced that the State Government Insurance Office Building Society was to take over the Queensland Permanent Building Society. Also on this date, the Reserve Bank allayed fears of a run by investors on Queensland's largest building society, the Metropolitan Permanent, by announcing it would back this society, if necessary.

October 1977

4 The Commonwealth Government announced a rebate of $7 per tonne on sugar used in export products other than approved fruit products.

6 The Commonwealth Government announced that quantitative import restrictions on passenger motor vehicles would continue until 31 December 1979.

The South Australian Premier introduced the 1977–78 State Budget, providing for a $18 million deficit (following a $9 million deficit in 1976–77).

8 The Commonwealth Government announced the completion of the third of four Deutschemark borrowings. Borrowings amounted to DM250 million (A$97 million) carrying an interest rate of 5.25 per cent.

11 The New South Wales Treasurer introduced the 1977–78 State Budget, providing for a $2 million surplus (following a $3 million surplus in 1976–77).

13 The Commonwealth Government announced measures to improve the funding of small businesses, including: extending the Commonwealth Development Bank's charter to allow loans to all kinds of businesses; extending the Australian Industry Development Corporation's activities in respect of small businesses; advising the Reserve Bank that it is the Government's policy that adequate finance should be made available to small businesses; directing the Reserve Bank to inform the major groups of financial institutions that lending criteria should be re-examined in the light of government policy.

14 The Commonwealth Government announced reductions in maximum interest rates on public and private borrowings by local and semi-government authorities by 0.2 percentage points for loans of four to six, seven to nine and ten to fourteen years maturity, and by 0.3 percentage points for loans of fifteen years and over. The new rates for public issues were 10.3 per cent for the four to six year loans, 10.5 per cent for the seven to nine year loans and 10 6 per cent for loans dated ten to fourteen years and fifteen years and over.

16 The New South Wales Government announced a $70 million dredging contract for Newcastle Harbour.

17 A Commonwealth conversion loan opened, offering securities with yields of 9.6 per cent (May 1979), 10.00 per cent (July 1982) and 10.2 per cent (September 1987 and October 1996). The May 1979 security was issued at 99.93 per cent and all other securities were issued at par. The conversion loan raised $227.3 million. No cash loan was offered.

Series 8 Australian Savings Bonds Series were replaced by Series 9 Bonds, lowering the interest rate 0.25 percentage points to 9.75 per cent. Net raisings by Series 8 Bonds were $391.7 million.

Tariffs on passenger vehicle radial tyres and all truck and bus tyres were increased by about 15 per cent to 40 per cent.

18 The Commonwealth Government announced that the Apple and Pear Stabilisation Scheme would be extended to cover the 1978 export crop.

19 The Western Australian Government announced that four international consortiums were to conduct an exploration program off Exmouth Plateau costing at least $213.6 million over a period of five to six years.

21 The Commonwealth Government announced that negotiations for the fourth bond issue on the German capital market were completed. The issue of DM250 million ($A98 million) had a coupon rate of 5.75 per cent.

24 The PJT awarded BHP a 4.08 per cent rise in the price of steel.

26 Thirteen-week Treasury Notes were issued at a price of 97.94 per cent with the yield to maturity being reduced from 8.520 per cent to 8.436 per cent. The 26-week notes were issued at 95.98 per cent with the yield to maturity being reduced from 8.989 per cent to 8.836 per cent. On November 4, the yield on 13-week Treasury Notes was reduced from 8.436 per cent to 8.353 per cent (issue price 97.96 per cent) and on 26-week notes from 8.836 per cent to 8.749 per cent (issue price 95.82 per cent).

The Queensland Government announced details of a new sugar agreement with Japan. The 1.8 million tonnes remaining to be shipped under the current long term contract would be shipped over four years instead of three years at 450,000 tonnes per year with a slightly reduced price; new contracts for 600,000 tonnes, to be shipped at a rate of 150,000 tonnes per year over the next four years, would have a market-related price.

31 Maximum interest rates applying to borrowings by local and semi-government authorities were reduced by 0.3 percentage points, with the new rates ranging from 10 per cent for four to six year loans to 10.3 per cent for over fifteen years.

November 1977

7 Coal and Allied Industries Ltd announced a twenty year extension of its long term steaming coal agreement with Ube Industries Ltd of Japan. The extension is estimated to be worth $500 million over the contract period.

The Commonwealth Government announced an extension of the Dried Vine Fruits Stabilisation Scheme to cover the three seasons 1978–80.

10 BHP signed contracts worth approximately $145 million to supply Nippon Steel (contract period eight years) and Kobe Steel (contract period six years) with 11 million tonnes of iron ore from Yampi Sound. The price set for the next two years represents an increase of 30 per cent over previous contracts.

12 The Victorian State Electricity Commission awarded contracts worth $294 million for the development of the Loy Yang power station.

14 Series 9 Australian Savings Bonds were replaced by Series 10 Bonds, lowering the interest rate 0.5 percentage points to 9.25 per cent. Net raisings by Series 9 Bonds were $30.0 million.

16 The Commonwealth Government announced a continuation of the drought relief measures in New South Wales, South Australia and Western Australia. The measures include freight subsidies of fodder to starving stock, freight concessions on water cartage and a cattle slaughter subsidy for helpless and unsaleable stock.

23 Negotiations were completed for a $US225 million ($A199.5 million) public bond issue by the Commonwealth Government on the United States capital market. The two tranches to the loan were $US125 million of 8.25 per cent seven year bonds issued at par and $US100 million of 8.875 per cent twenty year bonds issued at 99.875 per cent.

Ampol Petroleum Ltd announced an expansion program which included a $12 million extension of the company's Lytton refinery in Queensland.

24 The Australian Wheat Board announced an agreement with Indonesia providing for shipment of 400,000 tonnes of wheat during 1978 with an option on a further 100,000 tonnes.

The Chairman of Theiss Holdings Ltd reported that the company planned an expansion program of $94 million over the next two years in the areas of mining, plant replacement and development of other activities.

25 The Australian Wheat Board announced the sale of one million tonnes of wheat worth more than $100 million to the Arab Republic of Egypt, with the shipments being made during the 1978 calendar year.

December 1977

1 The home consumption price of wheat for the following twelve months was raised by $5.76 per tonne to $111.16 per tonne for Australian Standard White wheat.

4 West Australian Petroleum Pty Ltd and West Australian Natural Gas Pty Ltd announced they would spend more than $34 million in exploration of new gas and oil reserves in 1978.

12 The Arbitration Commission granted an increase of 1.5 per cent in all Federal Awards effective from the first pay period beginning on or after 12 December 1977.

EMI Ltd retrenched 350 workers from its colour television set plant at Homebush, N.S.W.

13 Coal and Allied Industries Ltd, announced the sale of coking coal to Pakistan Steel Mills Corporation worth an estimated $40 million, to be shipped over a five-year period beginning in 1979–80.

28 The meat import quota to the USA was increased by 4,800 tonnes over the 1977 level to approximately 301,000 tonnes for 1978.

The New South Wales Government granted a licence for the construction of a petroleum products pipeline from Caltex Australia Ltd's Banksmeadow plant to the proposed distribution facility at Silverwater. The estimated cost is $20 million and is part of an ongoing capital expansion program to cost the group more than $100 million by 1980.

LIST OF SPECIAL ARTICLES AND MISCELLANEOUS MATTER CONTAINED IN PREVIOUS ISSUES

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